

*L. E. Smith, M.D.*

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A

American Psychiatric Association

# PROCEEDINGS

OF THE

## American Medico-Psychological Association

AT THE

### SEVENTY-FIRST ANNUAL MEETING

HELD AT

OLD POINT COMFORT, VA., MAY 11-14, 1915

[Vol. 22]



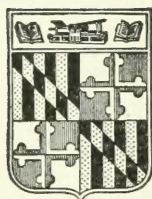
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**LIST OF MEMBERS**  
**—OF THE—**  
**AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION**  
**January, 1916**

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(This list printed on gummed paper, for mailing purposes, may be obtained from the Secretary. Price 50c.)

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**A**

- 1895 **Abbot, E. Stanley, M. D.**, Assistant Physician McLean Hospital, Waverley, Mass.
- 1907 **Abbot, Florence Hale, M. D.**, Assistant Physician Dr. Mellus' Private Hospital, Newton, Mass.
- 1904 **Adams, Geo. Sheldon, M. D.**, Assistant Superintendent South Dakota Hospital for the Insane, Yankton, S. D.
- 1914 **Adler, Herman M., M. D.**, Chief of Staff Psychopathic Hospital, Boston, Mass.
- 1903 **Allen, Charles Lewis, M. D.**, Physician-in-Charge Psychopathic Hospital, Los Angeles, Cal.
- 1912 **Allen, Frederick E., M. D.**, Physician-in-Charge Oakland Psychopathic Hospital, Oakland, Cal.
- 1893 **Allen, Henry D., M. D.**, Superintendent Invalids Home, Milledgeville, Ga.
- 1913 **Allen, J. Berton, M. D.**, Assistant Physician Central Islip State Hospital, Central Islip, N. Y. (*Associate.*)
- 1912 **Allison, W. L., M. D.**, Superintendent Arlington Heights Sanitarium, Fort Worth, Tex.
- 1913 **Alsbaugh, Paul J., M. D.**, First Assistant Physician Massillon State Hospital, Massillon, O. (*Associate.*)
- 1913 **Amsden, George S., M. D.**, Assistant Physician Bloomingdale Hospital, White Plains, N. Y. (*Associate.*)
- 1915 **Anderson, Albert, M. D.**, Superintendent State Hospital, Raleigh, N. C.
- 1915 **Anderson, Paul V., M. D.**, Resident Physician West End Sanatorium, Richmond, Va.
- 1912 **Andrews, Barton F., M. D.**, Mount Morris, N. Y. (*Associate.*)
- 1903 **Andrews, Clayton G., M. D.**, Canton, N. Y. (*Associate.*)
- 1894 **Anglin, James V., M. D.**, Medical Superintendent The Provincial Hospital, St. John, New Brunswick.
- 1895 **Applegate, Charles F., M. D.**, Medical Superintendent Mt. Pleasant State Hospital, Mt. Pleasant, Ia.

- 1910 Ard, George P., Assistant Physician State Institution for Feeble-Minded, Spring City, Pa.  
 1903 Armstrong, George G., M. D., Senior Assistant Physician Buffalo State Hospital, Buffalo, N. Y. (*Associate.*)  
 1913 Armstrong, Samuel T., M. D., Physician-in-Charge Hillbourne Club, Katonah, N. Y.  
 1900 Arthur, Daniel H., M. D., Collins, N. Y.  
 1904 Ashley, Maurice C., M. D., Medical Superintendent Middletown State Homeopathic Hospital, Middletown, N. Y.  
 1890 Atwood, Charles E., M. D., 14 East 60th St., New York, N. Y.

## B

- 1915 Babbitt, Ray M., M. D., Assistant Physician Huntington State Hospital, Huntington, W. Va. (*Associate.*)  
 1888 Babcock, J. W., M. D., Medical Superintendent Waverley Sanitarium, Columbia, S. C.  
 1911 Baber, Armitage, M. D., Superintendent Dayton State Hospital, Dayton, O.  
 1915 Bachelder, Frank S., M. D., Assistant Superintendent Eastern State Hospital, Pontiac, Mich. (*Associate.*)  
 1913 Baker, Amos T., M. D., Associate Physician, West Hill, 261st St. & Broadway, New York, N. Y. (*Associate.*)  
 1904 Baker, Benjamin W., M. D., Superintendent New Hampshire School for Feeble-Minded Children, Laconia, N. H.  
 1899 Baker, Jane Rogers, M. D., Private Sanitarium, The Tower House, West Chester, Pa.  
 1896 Baldwin, Henry C., M. D., 126 Commonwealth Ave., Boston, Mass.  
 1909 Baldwin, Louis B., M. D., Superintendent University Hospital, University of Minnesota, Minneapolis, Minn.  
 1898 Ballintine, Eveline P., M. D., Assistant Physician Rochester State Hospital, Rochester, N. Y. (*Associate.*)  
 1896 Bamford, Thos. E., M. D., 304 Delaware St., Syracuse, N. Y.  
 1883 Bancroft, Chas. P., M. D., Medical Superintendent New Hampshire State Hospital, Concord, N. H. (*President, 1908.*)  
 1890 Bannister, Henry M., M. D. (formerly Assistant Physician Illinois Eastern Hospital for the Insane), 828 Judson Ave., Evanston, Ill. (*Honorary.*)  
 1915 Bannon, Freeman R., M. D., Bloomington, Ind. (*Associate.*)  
 1912 Barber, Bruce B., M. D., Assistant Physician Columbus State Hospital, Columbus, O. (*Associate.*)  
 1914 Barber, W. C., M. D., Superintendent Simcoe Hall, Barrie, Ont., Canada.  
 1913 Barlow, Charles A., M. D., Superintendent Spencer State Hospital, Spencer, W. Va.  
 1912 Barnes, E. C., M. D., Assistant Physician Homewood Sanitarium, Guelph, Ont. (*Associate.*)



- 1909 **Barnes, Francis M., Jr., M.D.**, Assistant Professor Nervous and Mental Diseases, St. Louis University Medical School, 306 Humboldt Bldg., St. Louis, Mo.
- 1914 **Barnhardt, Wm. N., M.D.**, Assistant Physician Central Islip State Hospital, Central Islip, N. Y. (*Associate.*)
- 1898 **Barrett, Albert M., M.D.**, Professor of Psychiatry and Neurology University Hospital, Ann Arbor, Mich.
- 1914 **Barry, R. Grant, M.D.**, Worcester State Hospital, Worcester, Mass. (*Associate.*)
- 1912 **Bartram, Nell W., M.D.**, Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1914 **Baskett, George T., M.D.**, Assistant Superintendent St. Peter State Hospital, St. Peter, Minn.
- 1913 **Bass, T. B., M.D.**, Superintendent Texas State Epileptic Colony, Abilene, Tex.
- 1909 **Beach, Lena A., M.D.**, Woman Assistant Physician Cherokee State Hospital, Cherokee, Iowa.
- 1900 **Becker, W. F., M.D.**, Consulting Neurologist Milwaukee County Hospital, 604 Goldsmith Building, Milwaukee, Wis.
- 1892 **Beemer, Nelson H., M.D.**, Superintendent Mimico Hospital for the Insane, Toronto, Ont.
- 1902 **Beling, Christopher C., M.D.** (formerly Assistant Physician New Jersey State Hospital, Morris Plains, N. J.), 109 Clinton Ave., Newark, N. J.
- 1913 **Bellinger, Clarence H., M.D.**, Assistant Physician Binghamton State Hospital, Binghamton, N. Y. (*Associate.*)
- 1915 **Bentley, Inez A., M.D.**, Woman Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1893 **Berkley, Henry J., M.D.**, 1305 Park Ave., Baltimore, Md.
- 1904 **Betts, Joseph B., M.D.**, Assistant Physician Buffalo State Hospital, Buffalo, N. Y. (*Associate.*)
- 1899 **Beutler, W. F., M.D.**, Medical Superintendent Milwaukee Asylum for the Chronic Insane, Wauwatosa, Wis.
- 1913 **Beverly, A. Fitzhugh, M.D.**, Resident Physician Texas School for Defectives, Austin, Tex.
- 1898 **Biddle, Thomas, M.D.**, Superintendent Topeka State Hospital, Topeka, Kansas.
- 1913 **Blaisdell, Russell E., M.D.**, Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1914 **Blauvelt, John H., M.D.**, Assistant Physician Matteawan State Hospital, Beacon, N. Y. (*Associate.*)
- 1914 **Bles, Victor A., M.D.**, Physician Elgin State Hospital Elgin, Ill. (*Associate.*)
- 1912 **Bloss, James R., M.D.**, Assistant Physician West Virginia Asylum, Huntington, W. Va. (*Associate.*)
- 1886 **Blumer, G. Alder, M.D.**, Medical Superintendent Butler Hospital, Providence, R. I. (*President, 1903.*)

- 1909 **Bond, Earl D., M. D.**, Senior Assistant Physician Pennsylvania Hospital for Insane, Philadelphia, Pa. (*Associate.*)
- 1907 **Bond, George F. M., M. D.**, Proprietor Dr. Bond's House, 960 North Broadway, Yonkers. N. Y.
- 1892 **Bondurant, Eugene D., M. D.** (formerly Assistant Superintendent Alabama Bryce Hospital), 166 Conti St., Mobile, Ala.
- 1913 **Borden, P. G., M. D.**, Buffalo State Hospital, Buffalo, N. Y. (*Associate.*)
- 1912 **Boyd, Wm. A., M. D.**, 114 W. Franklin St., Baltimore, Md.
- 1904 **Bradley, Isabel A., M. D.**, 221 Ash St., Akron, O.
- 1914 **Braunlin, Edgar L., M. D.**, First Assistant Physician Dayton State Hospital, Dayton, O. (*Associate.*)
- 1910 **Brewster, George F., M. D.**, 264 W. 57th St., New York, N. Y. (*Associate.*)
- 1907 **Briggs, L. Vernon, M. D.**, Executive Secretary Massachusetts State Board of Insanity, 64 Beacon St., Boston, Mass.
- 1913 **Brill, A. A., M. D.**, 1 W. 70th St., New York, N. Y.
- 1906 **Brochu, M. D., M. D.**, Superintendent Beauport Asylum for Insane, Beauport, Que.
- 1915 **Brodsky, Emanuel S., M. D.**, Assistant Superintendent Westport Sanatorium, Westport, Conn. (*Associate.*)
- 1910 **Brooks, Swepson J., M. D.**, Physician-in-Charge St. Vincent's Retreat, Harrison, N. Y.
- 1914 **Brothers, J. E., M. D.**, Assistant Physician State Hospital, Goldsboro, N. C. (*Associate.*)
- 1913 **Brown, G. W., M. D.**, Superintendent Eastern State Hospital, Williamsburg, Va.
- 1914 **Brown, Louis R., M. D.**, Assistant Physician Hospital for Insane, Middletown, Conn. (*Associate.*)
- 1883 **Brown, Sanger, M. D.**, Physician-in-Chief Kenilworth Sanitarium, Kenilworth, Ill.
- 1913 **Brown, Sanger, II, M. D.**, Assistant Physician Bloomingdale Hospital, White Plains, N. Y. (*Associate.*)
- 1912 **Brown, Sherman, M. D.**, Superintendent Kenilworth Sanitarium, Kenilworth, Ill. (*Associate.*)
- 1899 **Brown, W. Stuart, M. D.**, Physician-in-Charge Sanford Hall, Flushing, New York, N. Y.
- 1899 **Brownrigg, Albert Edward, M. D.**, Medical Superintendent Highland Spring Sanatorium, Nashua, N. H.
- 1912 **Brundage, Howard M., M. D.**, 112 E. Broad St., Columbus, O. (*Associate.*)
- 1908 **Brunk, Oliver C., M. D.**, 405 E. Grace St., Richmond, Va.
- 1891 **Brush, Edward N., M. D.**, Physician-in-Chief and Superintendent Sheppard and Enoch Pratt Hospital, Towson, Md. (*President, 1916.*)
- 1912 **Bryan, Wm. A., M. D.**, Assistant Physician Cherokee State Hospital, Cherokee, Ia. (*Associate.*)

- 1895 **Bryant, Percy, M. D.** (formerly Medical Superintendent Male Department Manhattan (N. Y.) State Hospital), Bowdoin Park, Rahway, N. J.
- 1891 **Buchanan, J. M., M. D.**, Superintendent East Mississippi Insane Hospital, Meridian, Miss.
- 1912 **Buckley, Albert C., M. D.**, Friends' Hospital, Frankford, Philadelphia, Pa. (*Associate.*)
- 1898 **Buckley, James M., D. D., LL. D.**, Morristown, N. J. (*Honorary.*)
- 1915 **Buell, Blinn A., M. D.**, Assistant Physician Binghamton State Hospital, Binghamton, N. Y. (*Associate.*)
- 1902 **Bullard, E. L., M. D.** (formerly Superintendent Wisconsin State Hospital for the Insane, Mendota, Wis.), Proprietor and Physician-in-Charge Chestnut Lodge Sanitarium, Rockville, Md.
- 1905 **Burdick, Charles M., M. D.**, Senior Assistant Physician Central Islip State Hospital, Central Islip, L. I., N. Y. (*Associate.*)
- 1913 **Burdsall, Elijah S., M. D.**, Assistant Physician Middletown State Homeopathic Hospital, Middletown, N. Y. (*Associate.*)
- 1890 **Burgess, T. J. W., M. D.**, Medical Superintendent Protestant Hospital for the Insane, New P. O. Box 2280, Special Bag, Montreal, Que. (*President, 1905.*)
- 1909 **Burlingame, C. C., M. D.**, South Manchester, Conn. (*Associate.*)
- 1894 **Burnet, Anne, M. D.**, 513 La Salle St., Wausau, Wis.
- 1913 **Burnett, S. Grover, M. D.**, Medical Superintendent The Burnett Sanitarium, 3100 Euclid Ave., Kansas City, Mo.
- 1914 **Burns, Geoffrey C. H., M. D.**, Senior Assistant Physician Central Islip State Hospital, Central Islip, N. Y. (*Associate.*)
- 1890 **Burr, C. B., M. D.**, Medical Director Oak Grove Hospital, Flint, Mich. (*President, 1906.*)
- 1907 **Burr, Chas. W., M. D.**, Professor of Mental Diseases University of Pennsylvania, 1918 Spruce St., Philadelphia, Pa.
- 1901 **Busey, A. P., M. D.**, Superintendent Colorado State Home and Training School for Mental Defectives, Ridge, Colo.
- 1910 **Butterfield, George K., M. D.**, State Colony, North Grafton, Mass. (*Associate.*)

## C

- 1902 **Calder, Daniel H., M. D.**, Superintendent State Mental Hospital, Provo City, Utah.
- 1907 **Campbell, Earl H., M. D.**, Superintendent Upper Peninsula Hospital for the Insane, Newberry, Mich.
- 1899 **Campbell, George B., M. D.**, First Assistant Physician Utica State Hospital, Utica, N. Y.
- 1885 **Campbell, Michael, M. D.**, Medical Superintendent Eastern Hospital for the Insane, Bearden, Tenn.
- 1914 **Canavan, Myrtelle M., M. D.**, Pathologist Boston State Hospital, Boston, Mass. (*Associate.*)



- 1901 Caples, Byron M., M. D., Medical Superintendent Waukesha Springs Sanitarium, Waukesha, Wis.
- 1909 Capron, Arthur J., M. D., Physician-in-Charge Glenmary Sanitarium, Owego, N. Y.
- 1914 Carey, Charles J., M. D., Superintendent Eastern Shore State Hospital, Cambridge, Md.
- 1905 Carey, Harris May, M. D., P. O. Box 83, Odessa, Delaware.
- 1903 Carlisle, Chester Lee, M. D., Senior Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1915 Carmichael, E. A., M. D., Superintendent Osawatomie State Hospital, Osawatomie, Kans.
- 1911 Carpenter, Howard P., M. D., Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1906 Carriel, Henry B., M. D., 505 W. State St., Jacksonville, Ill.
- 1911 Carroll, Robert S., M. D., Medical Director Highland Hospital, Asheville, N. C.
- 1913 Casamajor, Louis, M. D., 342 W. 56th St., New York, N. Y.
- 1909 Cavanaugh, William J., M. D., Senior Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1892 Chaddock, Chas. G., M. D., 3705 Delmar Boulevard, St. Louis, Mo.
- 1896 Chagnon, E. Philippe, M. D., Physician to Notre Dame Hospital, 201 Esplanade Ave., Montreal, Que.
- 1880 Channing, Walter, M. D., Channing Sanitarium, Brookline, Mass.
- 1867 Chapin, John B., M. D. (formerly Physician and Superintendent Pennsylvania Hospital for the Insane), (Retired), 244 Main St., Canandaigua, N. Y. (*President, 1889.*)
- 1912 Chapman, Ross McC., M. D., Senior Assistant Physician Binghamton State Hospital, Binghamton, N. Y. (*Associate.*)
- 1883 Chase, Robert H., M. D., Medical Superintendent Friends' Hospital, Frankford, Philadelphia, Pa.
- 1914 Cheney, Clarence O., M. D., Assistant Physician Manhattan State Hospital, Ward's Island, N. Y.
- 1912 Child, Howard T., M. D., Pathologist Kankakee State Hospital, Kankakee, Ill. (*Associate.*)
- 1895 Chilgren, G. A., M. D., 406½ Jefferson St., Burlington, Iowa.
- 1892 Christian, Edmund A., M. D., Medical Superintendent Pontiac State Hospital, Pontiac, Mich.
- 1913 Christian, Frank L., M. D., Assistant Superintendent New York State Reformatory, Elmira, N. Y.
- 1907 Clark, Charles H., M. D., Superintendent Lima State Hospital, Lima, Ohio.
- 1910 Clark, Fred P., M. D., Superintendent State Hospital, Stockton, Cal.
- 1915 Clark, J. Henry, M. D., Newark, N. J.
- 1898 Clark, Joseph Clement, M. D., Superintendent Springfield State Hospital, Sykesville, Md.

- 1906 Clark, L. Pierce, M. D., Consulting Neurologist Central Islip State Hospital, 84 East 56th St., New York, N. Y.
- 1885 Clarke, Chas. K., M. D., Medical Superintendent Toronto General Hospital, Toronto, Ont.
- 1915 Clarke, H. G., M. D., Assistant Physician Pittsburgh City Home Marshalsea, Boyce, Pa. (*Associate.*)
- 1904 Clarke, Homer E., M. D., Assistant Medical Director, Oak Grove Hospital, Flint, Mich. (*Associate.*)
- 1915 Cline, Bernard McHugh, M. D., Assistant Physician Georgia State Sanitarium, Milledgeville, Ga.
- 1915 Cobb, O. H., M. D., Superintendent Syracuse State Hospital for Feeble-Minded Children, Syracuse, N. Y.
- 1898 Coe, Henry W., M. D., Medical Director Crystal Springs, 516 Selling Building, Portland, Ore.
- 1915 Coffin, Harriet F., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1905 Coggins, Jesse C., M. D., Medical Director The Laurel Sanitarium, Laurel, Md.
- 1913 Cohn, Eugen, M. D., Assistant Superintendent Kankakee State Hospital, Kankakee, Ill.
- 1913 Cohoon, E. H., M. D., Assistant Physician, State Hospital for Insane, Howard, R. I. (*Associate.*)
- 1901 Coleburn, Arthur B., M. D., Assistant Physician Connecticut Hospital for the Insane, Middletown, Conn. (*Associate.*)
- 1909 Collier, G. Kirby, M. D., Assistant Physician Craig Colony for Epileptics, Sonyea, N. Y.
- 1912 Colnon, A. T., M. D., Assistant Physician St. Lawrence State Hospital, Ogdensburg, N. Y. (*Associate.*)
- 1915 Conlon, Wm. Alfred, M. D., Assistant Physician Central Islip State Hospital, Central Islip, N. Y. (*Associate.*)
- 1915 Connor, Guy L., M. D., Detroit, Mich.
- 1894 Cook, R. Harvey, M. D., Physician-in-Chief Oxford Retreat, Oxford, Ohio.
- 1894 Cook, Robert G., M. D., Resident Physician Brigham Hall, Canandaigua, N. Y.
- 1915 Cooper, A. S., M. D., Assistant Physician Eastern La. Hospital for the Insane, Jackson, La. (*Associate.*)
- 1892 Copp, Owen, M. D., Physician and Superintendent Pennsylvania Hospital for the Insane, Philadelphia, Pa.
- 1912 Corcoran, David, M. D., Assistant Physician Central Islip State Hospital, Central Islip, N. Y. (*Associate.*)
- 1914 Corey, Herman W., M. D., Assistant Physician St. Peter State Hospital, St. Peter, Minn. (*Associate.*)
- 1903 Coriat, Isador H., M. D., 416 Marlborough St., Boston, Mass.
- 1908 Cornell, William B., M. D., 401 Garrett Bldg., Baltimore, Md.
- 1915 Cornwell, Herbert C. deV., M. D., 40 E. 41st St., New York, N. Y.

- 1902 Cort, Paul Lange, M. D., 144 West State St., Trenton, N. J. (*Associate.*)
- 1903 Cotton, Henry A., M. D., Medical Director New Jersey State Hospital, Trenton, N. J.
- 1881 Cowles, Edward, M. D. (formerly Medical Superintendent McLean Hospital, Waverley), Plymouth, Mass. (*President, 1895.*)
- 1914 Cozad, H. Irving, M. D., Clinical Director Fair Oaks Villa, Cuyahoga Falls, O. (*Associate.*)
- 1912 Craig, Anna, M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1908 Crittenden, Samuel W., M. D., Assistant Superintendent Boston State Hospital, Dorchester Centre, Mass. (*Associate.*)
- 1913 Crooks, Wm. A., M. D., Rock Island, Ill.
- 1913 Cross, Albert M., M. D., Assistant Physician The Southern Indiana Hospital for the Insane, Evansville, Ind. (*Associate.*)
- 1892 Crumbacker, W. P., M. D., Medical Superintendent Independence State Hospital, Independence, Ia.
- 1913 Curry, Marcus A., M. D., Assistant Physician New Jersey State Hospital, Morris Plains, N. J. (*Associate.*)
- 1913 Curtis, Barbara, M. D., Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)

## D

- 1914 Darling, Ira A., M. D., Assistant Physician State Hospital, Warren, Pa. (*Associate.*)
- 1899 Darling, W. H., M. D., Superintendent The Sanatorium, Hudson, Wis. (*Associate.*)
- 1902 Darnall, Rolland F., M. D., Clinical Director and Assistant Superintendent State Hospital for Nervous Diseases, Little Rock, Ark.
- 1915 Darrow, Fred L., M. D., Assistant Physician Eastern Indiana Hospital, Richmond, Ind. (*Associate.*)
- 1913 Davies, George W., M. D., Essex County Hospital for Insane, Cedar Grove, N. J. (*Associate.*)
- 1909 De Jarnette, J. S., M. D., Medical Superintendent Western State Hospital, Staunton, Va.
- 1899 Delacroix, Arthur C., M. D., Douglas, Alaska. (*Associate.*)
- 1913 DeLaHoyde, T. Grover, M. D., Assistant Physician Binghamton State Hospital, Binghamton, N. Y. (*Associate.*)
- 1912 Deming, Ralph, M. D., Mercer, N. Dak. (*Associate.*)
- 1909 Dennes, Blanche, M. D., Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1915 Deuschle, W. D., M. D., 112 E. Broad St., Columbus, Ohio.
- 1915 Devendorf, Frederick C., M. D., Assistant Physician Mattewan State Hospital, Beacon, N. Y. (*Associate.*)
- 1912 Devlin, Francis E., M. D., Assistant Superintendent Hospital St. Jean de Dieu, Gamelin, Que. (*Associate.*)

- 1911 De Weese, Cornelius, M. D., Medical Director The Laurel Sanitarium, Laurel, Md.
- 1890 Dewey, Chas. G., M. D., Examining Physician Registration Department City of Boston, 44 Alban St., Dorchester, Boston, Mass.
- 1881 Dewey, Richard, M. D., Physician-in-Charge Milwaukee Sanitarium, Wauwatosa, Wis. (*President, 1896.*) Chicago office, 34 Washington St., Venetian Building, Wednesdays, 11.30 a. m. to 1 p. m.
- 1913 Dexter, Roger, M. D., Assistant Physician Dannemora State Hospital, Dannemora, N. Y. (*Associate.*)
- 1900 Diefendorf, Allen Ross, M. D., 29 College St., New Haven, Conn.
- 1914 Disbrow, G. Ward, M. D., 151 Orchard St., Newark, N. J. (*Associate.*)
- 1912 Dobson, Wm. M., M. D., Boston State Hospital, Dorchester Centre, Mass. (*Associate.*)
- 1912 Dodge, Percy L., M. D., Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1907 Doherty, Charles E., M. D., Superintendent Public Hospital for Insane, New Westminster, B. C., Canada.
- 1892 Dold, William E., M. D., Physician-in-Charge River Crest Sanitarium, Astoria, L. I., N. Y. 616 Madison Ave., New York City.
- 1908 Dolloff, Charles H., M. D., First Assistant Physician New Hampshire State Hospital, Concord, N. H. (*Associate.*)
- 1908 Donohoe, George, M. D., Superintendent Cherokee State Hospital, Cherokee, Iowa.
- 1902 Douglas, A. E., M. D., Superintendent Central Hospital for the Insane, Nashville, Tenn.
- 1907 Downing, Dana Fletcher, M. D., Warren, Ill.
- 1892 Drewry, William F., M. D., Medical Superintendent Central State Hospital, Petersburg, Va. (*President, 1910.*)
- 1915 Drysdale, H. H., M. D., Rose Bldg., Cleveland, Ohio.
- 1914 Dunham, Sydney A., M. D., Resident Physician and Proprietor Dr. Dunham's Sanitarium, 1392 Amherst St., Buffalo, N. Y.
- 1913 Dunning, Ralph H., M. D., 2020 James St., Eastwood, N. Y. (*Associate.*)
- 1896 Dunton, Wm. Rush, Jr., M. D., First Assistant Physician Sheppard and Enoch Pratt Hospital, Towson, Md.
- 1912 Durgin, Delmer D., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1899 Durham, Albert, M. D., Piedmont Bldg., Charlotte, N. C. (*Associate.*)

## E

- 1909 Earl, H. D., M. D., First Assistant Physician North Dakota State Hospital, Jamestown, N. D.
- 1912 Eastman, Frederic C., M. D., 1268 Bergen St., Brooklyn, N. Y.
- 1912 Eaton, Richard G., M. D., Assistant Physician River Crest Sanitarium, Astoria, L. I., N. Y. (*Associate.*)
- 1914 Eckel, John L., M. D., 145 Allen St., Buffalo, N. Y.



- 1915 Eckerdt, A. Burton, M. D., Assistant Physician Montana State Hospital, Warm Springs, Mont., care of P. O. Box 1657. (*Associate.*)
- 1896 Edenharter, Geo. F., M. D., Medical Superintendent Central Indiana Hospital for the Insane, Indianapolis, Ind.
- 1893 Edgerly, J. Frank, M. D., Lincoln, Mass.
- 1894 Edwards, John B., M. D. (formerly Medical Superintendent Wisconsin State Hospital), 311 Goldsmith Building, Milwaukee, Wis.
- 1913 Eirley, Clara, M. D., State Hospital, St. Peter, Minn. (*Associate.*)
- 1899 Elliott, Hiram, M. D. (formerly Superintendent Marshall Sanitarium), 58 Willett St., Albany, N. Y.
- 1897 Elliott, Robert M., M. D., Medical Superintendent Willard State Hospital, Willard, N. Y.
- 1915 Ellison, Wm. A., M. D., Assistant Physician Allens Invalid Home, Milledgeville, Ga. (*Associate.*)
- 1913 Emerick, E. J., M. D., Superintendent Institution for Feeble-Minded, Columbus, O.
- 1913 Emerson, Ernest B., M. D., Medical Director State Hospital, Bridgewater, Mass.
- 1892 Emerson, Justin E., M. D., Attending Physician St. Joseph's Retreat, Dearborn, Mich.; Consulting Neurologist Harper Hospital and Children's Free Hospital, Detroit, 128 Henry St., Detroit, Mich.
- 1915 Ende, Edward H., M. D., Assistant Physician Central Islip State Hospital, Central Islip, N. Y. (*Associate.*)
- 1909 English, W. M., M. D., Medical Superintendent Hospital for Insane, Hamilton, Ont.
- 1893 Evans, B. D., M. D., Medical Director New Jersey State Hospital, Morris Plains, N. J.
- 1915 Evans, T. W., M. D., Assistant Physician Eastern La. Hospital for the Insane, Jackson, La. (*Associate.*)
- 1914 Evarts, Arrah B., M. D., Assistant Physician Government Hospital for Insane, Washington, D. C. (*Associate.*)
- 1908 Everett, Edward A., M. D., Senior Assistant Physician Norwich State Hospital, Norwich, Conn.
- 1912 Ewing, Halle Laura, M. D., Assistant Physician Nebraska Hospital for Insane, Lincoln, Neb. (*Associate.*)
- 1892 Eyman, H. C., M. D., Medical Superintendent Massillon State Hospital, Massillon, Ohio.

## F

- 1907 Faison, W. W., M. D., Superintendent State Hospital, Goldsboro, N. C.
- 1914 Faris, George T., M. D., Assistant Physician Pennsylvania Hospital for Insane, Philadelphia, Pa. (*Associate.*)
- 1912 Faxon, Dora W., M. D., Foxborough State Hospital, Foxborough, Mass. (*Associate.*)
- 1898 Felty, John C., M. D., 143 Baltimore St., Gettysburg, Pa. (*Associate.*)



- 1895 Fernald, Walter E., M. D., Superintendent Massachusetts School for the Feeble-Minded, Waverley, Mass.
- 1909 Ferris, Albert Warren, M. D., State Reservation Commission, Saratoga Springs, N. Y.
- 1913 Finlayson, Alan D., M. D., Senior Assistant Physician Warren State Hospital, Warren, Pa. (*Associate.*)
- 1915 Fischbein, Elias, M. D., Assistant Physician Craig Colony for Epileptics, Sonyea, N. Y. (*Associate.*)
- 1912 Fish, Drury L., M. D., Kankakee State Hospital, Hospital, Ill. (*Associate.*)
- 1907 Fisher, E. Moore, M. D., Senior Assistant Physician New Jersey State Hospital, Morris Plains, N. J. (*Associate.*)
- 1892 Fitzgerald, John F., M. D., General Medical Superintendent, King's County Hospital, Brooklyn, N. Y.
- 1912 Fletcher, Christopher, M. D., Assistant Physician Buffalo State Hospital, Buffalo, N. Y. (*Associate.*)
- 1900 Flood, Everett, M. D., Superintendent Monson State Hospital, Palmer, Mass.
- 1912 Foley, Edward A., M. D., Assistant Physician Jacksonville State Hospital, Jacksonville, Ill. (*Associate.*)
- 1915 Folsam, Ralph P., M. D., Senior Physician Manhattan State Hospital, Wards Island, N. Y. (*Associate.*)
- 1911 Fordyce, O. O., M. D., Superintendent Athens State Hospital, Athens, O.
- 1913 Forster, James M., M. D., Medical Superintendent Hospital for Insane, Toronto, Ont.
- 1915 Fort, S. J., M. D., Baltimore, Md.
- 1915 Francisco, Howard M., M. D., Assistant Physician and Pathologist, Central Hospital for the Insane, Nashville, Tenn. (*Associate.*)
- 1915 Frank S. H., M. D., Second Assistant Physician Pittsburgh City Home, Marshalsea, Boyce, Pa. (*Associate.*)
- 1908 Franz, Shepherd I., A. B., Ph. D., Scientific Director Government Hospital for Insane, Washington, D. C. (*Honorary.*)
- 1913 Freeman, George H., M. D., Superintendent State Hospital for Inebriates, Willmar, Minn.
- 1897 French, Edward, M. D., Superintendent Medfield State Hospital, Harding, Mass.
- 1914 Frink, Horace W., M. D., 1 W. 83d St., New York, N. Y.
- 1899 Frost, Henry P., M. D., Superintendent Boston State Hospital, Dorchester Centre, Mass.
- 1913 Fuller, Daniel H., M. D., Senior Assistant Physician Pennsylvania Hospital for Insane, Philadelphia, Pa.
- 1902 Fuller, Solomon Carter, M. D., Pathologist Westborough State Hospital, Westborough, Mass. (*Associate.*)

- 1908 Funkhouser, Edgar B., M. D., Second Assistant Physician New Jersey State Hospital, Trenton, N. J. (*Associate.*)
- 1914 Furman, Isaac J., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)

## G

- 1911 Gale, George Bancroft, M. D., Medical Director Bancroft Health Resort, Butler, N. J.
- 1913 Gardner, Wm. E., M. D., Superintendent Central State Hospital, Lakeland, Ky.
- 1900 Garlick, J. H., M. D., First Assistant Physician Western State Hospital, Staunton, Va. (*Associate.*)
- 1905 Garrett, R. Edward, M. D., Assistant Physician Maryland Hospital for the Insane, Catonsville, Md. (*Associate.*)
- 1915 Garvin, Wm. C., M. D., Senior Assistant Physician Manhattan State Hospital, Wards Island, N. Y. (*Associate.*)
- 1909 George, John Cecil, M. D., Orchard Springs Sanitarium, Dayton, Ohio. (*Associate.*)
- 1912 Gesregen, Wm. E., M. D., Resident Physician Belle Mead Farm Colony and Sanatorium, Belle Mead, N. J.
- 1914 Gibson, Horatio G., Jr., M. D., Assistant Physician Central Islip State Hospital, Central Islip, N. Y. (*Associate.*)
- 1909 Gillespie, Edward, M. D., Senior Assistant Physician Binghamton State Hospital, Binghamton, N. Y. (*Associate.*)
- 1912 Gilliam, Charles F., M. D., Superintendent Columbus State Hospital, Columbus, O.
- 1915 Gillis, Andrew C., M. D., Baltimore, Md.
- 1913 Ginsburg, Samuel, M. D., Assistant Physician St. Lawrence State Hospital, Ogdensburg, N. Y. (*Associate.*)
- 1893 Givens, A. J., M. D., Proprietor Dr. Givens' Sanitarium, Stamford, Conn.
- 1895 Givens, John W., M. D., Medical Superintendent Northern Idaho Insane Asylum, Orofino, Idaho.
- 1910 Glascock, Alfred, M. D., Senior Assistant Physician Government Hospital for the Insane, Washington, D. C. (*Associate.*)
- 1914 Glueck, Bernard, M. D., Senior Assistant Physician Government Hospital for Insane, Washington, D. C. (*Associate.*)
- 1903 Goodwill, V. L., M. D., and C. M., Medical Superintendent Falconwood Hospital for the Insane, Charlottetown, P. E. I.
- 1912 Gordon, Alfred, M. D., 1812 Spruce St., Philadelphia, Pa.
- 1912 Gorrill, George W., M. D., First Assistant Physician Buffalo State Hospital, Buffalo, N. Y. (*Associate.*)
- 1906 Gorst, Charles, M. D., Mendota, Wis.
- 1894 Gorton, Eliot, M. D., Fair Oaks Sanatorium, 26 New England Ave., Summit, N. J.

- 1915 Gosline, Harold I., M. D., Assistant Physician Worcester State Hospital, Worcester, Mass. (*Associate.*)
- 1898 Goss, Arthur V., M. D., Superintendent Taunton State Hospital, Taunton, Mass.
- 1912 Goss, H. L., M. D., Assistant Physician Osawatomie State Hospital, Osawatomie, Kans. (*Associate.*)
- 1886 Granger, Wm. D., M. D., Vernon House, Bronxville, N. Y.
- 1905 Green, Edward M., M. D., Clinical Director Georgia State Sanitarium, Milledgeville, Ga.
- 1909 Greene, Edward C., M. D., Northampton State Hospital, Northampton, Mass. (*Associate.*)
- 1910 Greene, James L., M. D., Hot Springs, Ark.
- 1914 Gregg, Donald, M. D., Associate Physician Channing Sanitarium, Brookline, Mass.
- 1908 Gregory, Menas S., M. D., Resident Alienist Bellevue Hospital, New York, N. Y.
- 1913 Griffin, D. W., M. D., Superintendent Oklahoma State Hospital, Norman, Okla.
- 1913 Groom, Wirt C., M. D., Assistant Physician Willard State Hospital, Willard, N. Y. (*Associate.*)
- 1914 Grover, Milton M., M. D., Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1910 Guibord, Alberta S. B., M. D., 512 Albany Building, Boston, Mass.
- 1900 Gundry, Alfred T., M. D., Medical Director The Gundry Sanitarium, Catonsville, Md.
- 1908 Gundry, Lewis H., M. D., Superintendent Relay Sanitarium, Relay, Baltimore Co., Md.
- 1892 Gundry, Richard F., M. D., Medical Director and Proprietor the Richard Gundry Home, Harlem Lodge, Catonsville, Md.
- 1899 Guthrie, L. V., M. D., Superintendent Huntington State Hospital, Huntington, W. Va.

## H

- 1914 Haberman, J. Victor, M. D., Instructor in Neurology and Psychotherapy P. and S., Columbia University, New York, N. Y.
- 1912 Haight, Julius E., M. D., Beacon, N. Y. (*Associate.*)
- 1891 Hall, G. Stanley, Ph. D., LL. D., President Clark University, Worcester, Mass. (*Honorary.*)
- 1886 Hall, Henry C., M. D., Assistant Superintendent Butler Hospital, Providence, R. I. (*Associate.*)
- 1915 Hall, Jas. K., M. D., Resident Physician West End Sanatorium, Richmond, Va.
- 1899 Hamilton, Arthur S., M. D., Instructor in Nervous and Mental Diseases and Neuropathology, College of Medicine and Surgery, University of Minnesota, 513 Pillsbury Building, Minneapolis, Minn.

- 1914 Hamilton, Claude D., M.D., Assistant Physician Springfield State Hospital, Sykesville, Md. (*Associate.*)
- 1907 Hamilton, Gilbert V., M.D., Montecito, Cal.
- 1907 Hamilton, Samuel W., M.D., Senior Assistant Physician Utica State Hospital, Utica, N. Y.
- 1912 Hammers, James S., M.D., Assistant Physician State Hospital, Danville, Pa. (*Associate.*)
- 1908 Hammond, Frederick S., M.D., Assistant Physician and Pathologist, New Jersey State Hospital, Trenton, N. J. (*Associate.*)
- 1908 Hammond, Graeme M., M.D., Professor of Mental Diseases, 60 West 56th St., New York, N. Y.
- 1893 Hancker, W. H., M.D., Medical Superintendent Delaware State Hospital, Farnhurst, Del.
- 1906 Hanes, Edward L., M.D., 748 Main St., E., Rochester, N. Y.
- 1913 Hanson, Wm. T., M.D., Mass. State Infirmary, Tewksbury, Mass. (*Associate.*)
- 1904 Harding, George T., Jr., M.D. (Neurologist to Grant Hospital, St. Anthony's Hospital and St. Clair Hospital), 318 E. State St., Columbus, O.
- 1891 Harmon, F. W., M.D., Medical Superintendent Longview Hospital, Cincinnati, Ohio.
- 1894 Harrington, Arthur H., M.D., Superintendent State Hospital for Insane, Howard, R. I.
- 1913 Harris, George F., M.D., Assistant Physician Buffalo State Hospital, Buffalo, N. Y. (*Associate.*)
- 1899 Harris, Isham G., M.D., Superintendent Mohansic State Hospital, Yorktown, N. Y.
- 1888 Harrison, Daniel A., M.D., Breezehurst Terrace, Whitestone, L. I., N. Y.
- 1915 Haskell, Pearl T., M.D., Assistant Physician State Hospital, Bangor, Maine. (*Associate.*)
- 1915 Haskell, Robt. Henry, M.D., Assistant Physician Ionia State Hospital, Ionia, Mich.
- 1913 Hasking, Arthur P., M.D., Official Examiner of Indigent Insane, Hudson Co., 318 Montgomery St., Jersey City, N. J.
- 1914 Hassall, James C., M.D., Assistant Physician Government Hospital for Insane, Washington, D. C. (*Associate.*)
- 1910 Hatch, F. W., M.D., General Superintendent of California State Hospitals, Sacramento, Cal.
- 1913 Hatcher, George E., M.D., Cerulean, Ky. (*Associate.*)
- 1894 Hattie, W. H., M.D., Inspector of Humane and Penal Institutions, Halifax, N. S.
- 1899 Haviland, C. Floyd, M.D., Superintendent State Hospital, Middletown, Conn.
- 1914 Haviland, Walter C., M.D., 11 Elm St., Worcester, Mass.



- 1908 Hawke, W. W., M. D., "The Eyrie," Clifton Heights, Delaware Co., Pa.
- 1915 Hawkins, G. G., M. D., First Assistant Physician Eastern State Hospital, Williamsburg, Va. (*Associate.*)
- 1910 Hedin, Carl J., M. D., Superintendent Maine School for Feeble-Minded, W. Pownal, Me.
- 1912 Helmer, Ross D., M. D., Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1915 Henderson, David Kennedy, M. D., Resident Psychiatrist, Phipps Clinic, Johns Hopkins Hospital, Baltimore, Md. (*Associate.*) (Present address, Royal Asylum Gartnavel, Glasgow, Scotland.)
- 1913 Henderson, Estelle H., M. D., Southwestern State Hospital, Marion, Va. (*Associate.*)
- 1912 Henry, Hugh Carter, M. D., First Assistant Physician Central State Hospital, Petersburg, Va. (*Associate.*)
- 1911 Henschel, Louis K., M. D., Senior Assistant Physician and Pathologist New Jersey State Hospital, Morris Plains, N. J. (*Associate.*)
- 1911 Herring, Arthur P., M. D., Secretary State Lunacy Commission, 330 North Charles St., Baltimore, Md.
- 1894 Heyman, Marcus B., M. D., Assistant Superintendent Central Islip State Hospital, Central Islip, L. I., N. Y.
- 1911 Hickling, D. Percy, M. D., Alienist of District of Columbia, 1304 Rhode Island Ave., N. W., Washington, D. C.
- 1883 Hill, Chas. G., M. D., Physician-in-Chief Mt. Hope Retreat, Baltimore, Md. (*President, 1907.*)
- 1883 Hill, Gershom H., M. D., Superintendent "The Retreat," Des Moines, Ia.
- 1899 Hill, S. S., M. D., Superintendent State Asylum for the Chronic Insane, Wernersville, Pa.
- 1897 Hills, Frederick L., M. D., Superintendent Bangor State Hospital, Bangor, Me.
- 1886 Hinckley, L. S., M. D. (formerly Medical Superintendent Essex County Hospital), 182 Clinton Ave., Newark, N. J.
- 1913 Hinton, Ralph T., M. D., Superintendent Elgin State Hospital, Elgin, Ill.
- 1900 Hirsch, Wm., M. D., Neurologist to the German Poliklinik, 52 E. Sixty-fourth St., New York, N. Y.
- 1900 Hitchcock, Chas. W., M. D., Attending Neurologist Harper Hospital, 270 Woodward Ave., Detroit, Mich.
- 1903 Hobbs, Alfred T., M. D., Superintendent Homewood Sanitarium, Guelph, Ont.
- 1895 Hoch, August, M. D., Director Psychiatric Institute, Ward's Island, New York, N. Y.
- 1904 Hoch, Theodore A., M. D., Assistant Physician McLean Hospital, Waverley, Mass. (*Associate.*)



- 1914 **Hodskin, Morgan B., M.D.**, Assistant Physician Monson State Hospital, Palmer, Mass. (*Associate.*)
- 1914 **Hoffman, Harry F., M.D.**, Assistant Superintendent Homeopathic State Hospital, Allentown, Pa. (*Associate.*)
- 1915 **Holbrook, Chas. S., M.D.**, Assistant Physician Eastern La. Hospital for the Insane, Jackson, La. (*Associate.*)
- 1900 **Holley, Erving, M.D.**, Assistant Physician Long Island State Hospital, Brooklyn, N. Y. (*Associate.*)
- 1915 **Holt, Earl K., M.D.**, Assistant Physician Hospital for the Insane, Logansport, Ind. (*Associate.*)
- 1913 **Horsman, Hiram L., M.D.**, Assistant Physician Worcester State Asylum, Worcester, Mass. (*Associate.*)
- 1913 **Hotchkiss, W. M., M.D.**, Superintendent State Hospital for Insane, Jamestown, N. Dak.
- 1894 **Houston, John A., M.D.**, Medical Superintendent Northampton State Hospital, Northampton, Mass.
- 1894 **Howard, A. B., M.D.** (formerly Medical Superintendent Cleveland State Hospital), 736 Rose Building, Cleveland, Ohio.
- 1888 **Howard, Eugene H., M.D.**, Medical Superintendent Rochester State Hospital, Rochester, N. Y.
- 1894 **Howard, Herbert B., M.D.**, Superintendent Peter Bent Brigham Hospital, 697 Huntington Ave., Boston, Mass.
- 1912 **Hubbard, O. S., M.D.**, Assistant Superintendent Kansas State Hospital for Epileptics, Parsons, Kans. (*Associate.*)
- 1867 **Hughes, Chas. H., M.D.**, 3858 West Pine Boulevard, St. Louis, Mo.
- 1907 **Hummer, Henry R., M.D.**, Superintendent Asylum for Insane Indians, Canton, South Dakota.
- 1899 **Hun, Henry, M.D.**, Albany, N. Y. (*Honorary.*)
- 1894 **Hurd, Arthur W., M.D.**, Medical Superintendent Buffalo State Hospital, Buffalo, N. Y.
- 1879 **Hurd, Henry M., M.D.**, Secretary Johns Hopkins Hospital, 1210 Fidelity Building, Baltimore, Md. (*President, 1899.*)
- 1897 **Hutchings, Richard H., M.D.**, Medical Superintendent St. Lawrence State Hospital, Ogdensburg, N. Y.
- 1899 **Hutchinson, Anna E., M.D.**, Woman Assistant Physician Manhattan State Hospital, Ward's Island, New York, N. Y. (*Associate.*)
- 1885 **Hutchinson, Henry A., M.D.**, Medical Superintendent The Dixmont Hospital for the Insane, Dixmont, Pa.

## I

- 1901 **Inch, Geo. Franklin, M.D.**, First Assistant Physician Kalamazoo State Hospital, Kalamazoo, Mich. (*Associate.*)
- 1913 **Ingram, Robert, M.D.**, Neurologist Cincinnati Hospital, Cincinnati, O.
- 1912 **Isham, Mary Keyt, M.D.**, 149 W. 79th St., New York, N. Y. (*Associate.*)

## J

- 1913 Jackson, J. Allen, M. D., Chief Resident Physician Philadelphia Hospital for Insane, Philadelphia, Pa.
- 1912 Jacobs, Wilma H., M. D., Jacksonville State Hospital, Jacksonville, Ill. (*Associate.*)
- 1913 Jacoby, J. Ralph, M. D., 54 West 88th St., New York, N. Y.
- 1908 Jelliffe, Smith Ely, M. D., Visiting Neurologist City Hospital, 64 West 56th St., New York, N. Y.
- 1903 Jelly, Arthur C., M. D., 10 Arlington St., Boston, Mass.
- 1915 Jones, Kenneth B., M. D., Physician Detention Hospital, Baltimore, Md.
- 1909 Jones, L. M., M. D., Superintendent Georgia State Sanitarium, Mill-edgeville, Ga.
- 1915 Jones, Wm. A., M. D., Pillsbury Bldg., Minneapolis, Minn.
- 1909 Jordan, M. M., M. D., Assistant Physician Westborough State Hospital, Westborough, Mass. (*Associate.*)

## K

- 1906 Karpas, Morris J., M. D., Psychopathic Pavilion, Bellevue Hospital, New York, N. Y. (*Associate.*)
- 1915 Keating, Frank W., M. D., Superintendent Rosewood School for Feeble-Minded, Owings Mills, Md.
- 1914 Keatley, Harry W., M. D., Assistant Physician West Virginia Asylum, Huntington, W. Va. (*Associate.*)
- 1872 Kellogg, Theo. H., M. D., Riverdale Lane and Albany Post Road, Riverdale, New York, N. Y.
- 1913 Kelly, Wm. E., M. D., Assistant Physician Middletown State Homeopathic Hospital, Middletown, N. Y. (*Associate.*)
- 1914 Kempf, Edward J., M. D., Clinical Psychiatrist Government Hospital, Washington, D. C. (*Associate.*)
- 1915 Kempf, Grover A., M. D., Assistant Surgeon United States Public Health Service, Ellis Island, N. Y.
- 1890 Keniston, J. M., M. D., Assistant Physician Connecticut Hospital for the Insane, Middletown, Conn. (*Associate.*)
- 1915 Kenworthy, Marion E., M. D., Assistant Physician Gardner State Colony, Gardner, Mass. (*Associate.*)
- 1914 Keough, Peter L., M. D., 41 Arch St., Providence, R. I. (*Associate.*)
- 1912 Kern, W. B., M. D., 412 W. 6th St., Los Angeles, Cal.
- 1910 Kieb, Raymond F. C., M. D., Superintendent Matteawan State Hospital, Beacon, N. Y.
- 1890 Kilbourne, Arthur F., M. D., Medical Superintendent Rochester State Hospital, Rochester, Minn. (*President, 1909.*)
- 1895 Kindred, J. J., M. D., Proprietor and Consulting Physician of the River Crest Sanitarium, Astoria, L. I., N. Y.
- 1913 Kineon, G. G., M. D., Superintendent Ohio Hospital for Epileptics, Gallipolis, O.

- 1912 King, Florence A., M.D., Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1908 King, George W., M.D., County Physician, Court House, 239½ Second St., Jersey City, N. J.
- 1910 King, John C., M.D., Superintendent Southwestern State Hospital, Marion, Va.
- 1912 King, Robert, M.D., Assistant Physician Buffalo State Hospital, Buffalo, N. Y. (*Associate.*)
- 1914 Kingsley, Alfred C., M.D., Superintendent Arizona State Hospital, Phoenix, Ariz.
- 1901 Kinney, C. Spencer, M.D., Proprietor Easton Sanitarium, Easton, Pa.
- 1910 Kirby, George H., M.D., Director Clinical Psychiatry Manhattan State Hospital, Ward's Island, New York, N. Y.
- 1905 Kline, George M., M.D., Superintendent Danvers State Hospital, Hathorne, Mass.
- 1900 Klopp, Henry I., M.D., Superintendent Homeopathic State Hospital, Allentown, Pa.
- 1899 Knapp, John Rudolph, M.D., Assistant Physician Manhattan State Hospital, Ward's Island, New York, N. Y. (*Associate.*)
- 1913 Knight, Arthur Clyde, M.D., 301 Phoenix Block, Butte, Mont.
- 1902 Kuhlman, Helene J. C., M.D., Assistant Physician Buffalo State Hospital, Buffalo, N. Y. (*Associate.*)
- 1907 Kuhn, William F., M.D. (formerly Superintendent State Hospital No. 2, St. Joseph, Mo.), Room 1025 Rialto Building, Kansas City, Mo.

## L

- 1901 Lamb, Robert B., M.D., 447 Third Ave., Troy, N. Y.
- 1900 La Moure, Chas. T., M.D., Superintendent Connecticut School for Imbeciles, Lakeville, Conn.
- 1911 La Moure, Howard A., M.D., Superintendent Colorado State Insane Asylum, Pueblo, Col.
- 1908 Landers, George B., M.D., First Assistant Superintendent Presbyterian Hospital, 70th St. and Madison Ave., New York, N. Y. (*Associate.*)
- 1912 Lane, Arthur G., M.D., Assistant Physician St. Lawrence State Hospital, Ogdensburg, N. Y. (*Associate.*)
- 1892 Lane, Edward B., M.D., Resident Physician Adams Nervine Asylum, 419 Boylston St., Boston, Mass.
- 1913 Lang, Walter E., M.D., Senior Assistant Physician Homeopathic State Hospital, Allentown, Pa. (*Associate.*)
- 1903 Langdon, F. W., M.D., Medical Director Cincinnati Sanitarium; Professor of Psychiatry, University of Cincinnati, 4003 Rose Hill Ave., Cincinnati, Ohio.
- 1912 Langdon, Fletcher, M.D., 4003 Rose Hill Ave., Cincinnati, Ohio.
- 1906 Laughlin, Charles E., M.D., Superintendent Southern Indiana Hospital for the Insane, Evansville, Ind.

- 1907 Lawlor, Fred E., M. D., Superintendent Nova Scotia Hospital, Halifax, N. S.
- 1882 Lawton, Shailer E., M. D., Medical Superintendent Brattleboro Retreat, Brattleboro, Vt.
- 1911 Leader, Pauline M., M. D., Woman Physician Clarinda State Hospital, Clarinda, Iowa. (*Associate.*)
- 1912 Leahy, Sylvester R., M. D., Resident Alienist Kings Co. Hospital, Brooklyn, N. Y.
- 1901 Leak, Roy L., M. D., 1048 Lancaster Ave., Syracuse, N. Y.
- 1912 Leavitt, William, M. D., Assistant Physician Central Islip State Hospital, Central Islip, N. Y. (*Associate.*)
- 1914 Lee, Herbert, M. D., Resident Physician Dr. Woodson's Sanitarium, St. Joseph, Mo.
- 1914 Leehman, Helene G., M. D., Assistant Physician Essex County Hospital, Cedar Grove, N. J. (*Associate.*)
- 1913 Leonard, Edward F., M. D., 3501 N. Hermitage Ave., Chicago, Ill.
- 1913 Levin, Hyman L., M. D., Assistant Physician St. Lawrence State Hospital, Ogdensburg, N. Y. (*Associate.*)
- 1900 Lewis, J. M., M. D. (formerly Superintendent Cleveland State Hospital), 436 Rose Bldg., Cleveland, Ohio.
- 1914 Lind, John E., M. D., Senior Assistant Physician Government Hospital for Insane, Washington, D. C. (*Associate.*)
- 1910 Lindsay, S. C., M. D., Assistant Physician State Hospital, Independence, Iowa. (*Associate.*)
- 1915 Llewellyn, G. S., M. D., First Assistant Physician Pittsburgh City Home, Marshalsea, Boyce, Pa. (*Associate.*)
- 1915 Locke, Hersey G., M. D., 608 Genesee St., Syracuse, N. Y.
- 1899 Logie, Benjamin Rush, M. D., 1836 Connecticut Ave., Washington, D. C.
- 1909 Long, T. L., M. D., Assistant Physician Cherokee State Hospital, Cherokee, Iowa.
- 1911 Lorenz, William F., M. D., First Assistant Physician Wisconsin State Hospital for Insane, Mendota, Wis. (*Associate.*)
- 1909 Love, George R., M. D., Superintendent Toledo State Hospital, Toledo, Ohio.
- 1913 Lowe, Charles R., M. D., Jacksonville State Hospital, Jacksonville, Ill. (*Associate.*)
- 1903 Ludlum, Seymour DeWitt, M. D., Merion, Pa. (*Associate.*)
- 1912 Lustig, Daniel D., M. D., 146 Grant Ave., San Francisco, Cal.
- 1913 Lyon, Charles G., M. D., Superintendent Dr. Lyon's Sanitarium, Binghamton, N. Y.
- 1882 Lyon, Samuel B., M. D., "Shadyside," Prospect St. and Howard Place, White Plains, N. Y.

## M

- 1892 Mabon, William, M. D., Superintendent and Medical Director Manhattan State Hospital, Ward's Island, New York, N. Y.



- 1915 **MacCurdy, John T., M. D.**, Assistant Physician Psychiatric Institute, New York City.
- 1874 **MacDonald, Carlos F., M. D.**, 15 E. Forty-eighth St., New York., N. Y. (*President, 1914.*)
- 1914 **Macdonald, John B., M. D.**, Assistant Physician Danvers State Hospital, Hathorne, Mass. (*Associate.*)
- 1915 **MacDonald, Thos. D., M. D.**, Assistant Physician Dr. MacDonald's House, Central Valley, N. Y. (*Associate.*)
- 1915 **MacIver, Geo. A., M. D.**, Assistant Physician State Hospital, Worcester, Mass. (*Associate.*)
- 1913 **Mack, Clifford W., M. D.**, Livermore Sanitarium, Livermore, Cal.
- 1907 **Mackin, M. Charles, M. D.**, Assistant Physician State Hospital for Inebriates, Knoxville, Ia. (*Associate.*)
- 1906 **Mackintosh, J. A., M. D.**, Inverness Farm, R. D. No. 3, Easton, Md.
- 1912 **MacNaughton, Peter, M. D.**, Assistant Superintendent Hospital for Insane, Hamilton, Ont. (*Associate.*)
- 1902 **Macphail, Andrew, M. D., M. R. C. S., Eng., L. R. C. P., London**; Professor of Pathology and Bacteriology University of Bishop's College, Montreal; Consulting Pathologist to Protestant Hospital for the Insane, Montreal, 216 Peel St., Montreal, Que.
- 1894 **McBride, James H., M. D.**, 489 Bellefontaine St., Pasadena, Cal.
- 1909 **McCafferty, Emit L., M. D.**, Assistant Superintendent Mt. Vernon Hospital, Mt. Vernon, Ala.
- 1910 **McCampbell, John, M. D.**, Superintendent State Hospital, Morganton, N. C.
- 1909 **McCarthy, D. J., M. D.**, Professor of Medical Jurisprudence University of Pennsylvania and Woman's Medical College, Philadelphia, Pa.
- 1903 **McDonald, William, Jr., M. D.**, 188 Blackstone Boulevard, Providence, R. I.
- 1915 **McFadden, Jas. F., M. D.**, Assistant Physician Foxborough State Hospital, Foxborough, Mass. (*Associate.*)
- 1909 **McGaffin, Charles Gibson, M. D.**, Pathologist and Assistant Physician Kings Park State Hospital, Kings Park, N. Y.
- 1911 **McKay, James G., M. D.**, Assistant Physician Hospital for Insane, New Westminster, B. C.
- 1905 **McKelway, John Irvine, M. D.**, Second Assistant Superintendent Eastern Oregon State Hospital, Pendleton, Ore.
- 1907 **McKinniss, Clyde R., M. D.**, Superintendent Pittsburgh City Hospital, Boyce Station, Pa.
- 1897 **Macy, Wm. Austin, M. D.**, Medical Superintendent Kings Park State Hospital, Kings Park, L. I., N. Y.
- 1912 **Mahan, H. P., M. D.**, Assistant Physician Kansas State Hospital for Epileptics, Parsons, Kans. (*Associate.*)
- 1912 **Malberti, José A., M. D.**, Malberti's Sanitarium, Havana, Cuba.



- 1900 **Manton, Walter P., M. D.**, Gynecologist Eastern and Northern Michigan Asylums; Consulting Gynecologist St. Joseph's Retreat, 32 Adams Ave., West, Detroit, Mich.
- 1915 **Markham, Convas L., M. D.**, Superintendent Brunswick Home, Amityville, N. Y.
- 1915 **Mason, B. Henry, M. D.**, First Assistant Physician Worcester State Hospital, Worcester, Mass. (*Associate.*)
- 1911 **Matthews, Adelbert C., M. D.**, First Assistant Physician Napa State Hospital, Napa, Cal. (*Associate.*)
- 1912 **Matzinger, Herman G., M. D.**, 90 Soldier's Place, Buffalo, N. Y.
- 1904 **Maxfield, Geo. H., M. D.**, Soldiers' Home, Chelsea, Mass. (*Associate.*)
- 1912 **May, Herman F., M. D.**, Assistant Physician Buffalo State Hospital, Buffalo, N. Y. (*Associate.*)
- 1910 **May, James V., M. D.**, Medical Member State Hospital Commission, Albany, N. Y.
- 1894 **Mayberry, Chas. B., M. D.**, Superintendent Hospital for the Insane of the Central Poor District of Luzerne County, Retreat, Luzerne Co., Pa.
- 1902 **Mayer, Edward E., M. D.**, Clinical Professor of Neurology University of Pittsburgh, Keenan Bldg., Pittsburgh, Pa.
- 1893 **Mead, Leonard C., M. D.**, Medical Superintendent South Dakota Hospital for the Insane, Yankton, S. D.
- 1912 **Mellus, Edward, M. D.**, Superintendent Dr. Mellus' Private Hospital, 419 Waverley Ave., Newton, Mass.
- 1891 **Meredith, Hugh B., M. D.**, Medical Superintendent State Hospital for the Insane, Danville, Pa.
- 1912 **Merriman, Willis E., M. D.**, Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1893 **Meyer, Adolf, M. D.**, Professor of Psychiatry Johns Hopkins University, 101 Edgevale Road, Roland Park, Md.
- 1907 **Meyers, Donald Campbell, M. D.**, Superintendent Dr. Meyers' Hospital, 72 Heath St., Toronto, Canada.
- 1914 **Mikels, Frank M., M. D.**, Assistant Physician New Jersey State Hospital, Morris Plains, N. J. (*Associate.*)
- 1914 **Miller, C. Ross, M. D.**, Assistant Physician St. Lawrence State Hospital, Ogdensburg, N. Y. (*Associate.*)
- 1915 **Miller, F. B. E., M. D.**, Assistant Physician State Hospital for the Insane, Cherokee, Iowa. (*Associate.*)
- 1904 **Miller, Henry W., M. D.**, "Mountainbrook," Brewster, N. Y.
- 1893 **Mills, Chas. K., M. D.**, Professor of Neurology University of Pennsylvania, 1909 Chestnut St., Philadelphia, Pa.
- 1915 **Mills, Harlan P., M. D.**, First Assistant Physician Arizona State Hospital, Phoenix, Ariz. (*Associate.*)
- 1907 **Millspaugh, Daniel T., M. D.**, Superintendent "Riverlawn," 47 Totowa Ave., Paterson, N. J.
- 1899 **Mitchell, H. W., M. D.**, Superintendent Warren State Hospital, Warren, Pa.

- 1912 Mitchell, John C., M. D., Superintendent Hospital for the Insane, Brockville, Ont.
- 1908 Mitchell, Roy E., M. D., Boberg Building, Eau Claire, Wis.
- 1911 Mobley, John W., M. D., Assistant Physician State Sanitarium, Mill-edgeville, Ga. (*Associate.*)
- 1903 Montgomery, Wm. H., M. D., Senior Assistant Physician Willard State Hospital, Willard, N. Y. (*Associate.*)
- 1906 Moody, G. H., M. D., Superintendent Dr. Moody's Sanitarium, 315 Brackenridge Ave., San Antonio, Texas.
- 1912 Moore, Arthur S., M. D., Assistant Physician Middletown State Hospital, Middletown, N. Y. (*Associate.*)
- 1914 Moore, Joseph W., M. D., First Assistant Physician Matteawan State Hospital, Beacon, N. Y. (*Associate.*)
- 1896 Morel, Jules, M. D., Medical Superintendent State Asylum; Commissioner in Lunacy, 56 Boulevard Leopold, Ghent, Belgium. (*Honorary.*)
- 1913 Morris, John N., M. D., Springfield State Hospital, Sykesville, Md. (*Associate.*)
- 1913 Morse, Mary E., M. D., Boston State Hospital, Dorchester Center, Boston, Mass. (*Associate.*)
- 1893 Mosher, J. Montgomery, M. D., 170 Washington Ave., Albany, N. Y.
- 1881 Motet, A. M., M. D., 161 Rue de Charonne, Paris, France. (*Honorary.*)
- 1915 Mullan, E. H., M. D., Ellis Island, N. Y.
- 1886 Munson, James D., M. D., Medical Superintendent Northern Michigan Asylum, Traverse City, Mich.
- 1907 Munson, James F., M. D., Resident Pathologist Craig Colony for Epileptics, Sonyea, N. Y.
- 1909 Murdock, J. Morehead, M. D., Superintendent State Institution Feeble-Minded of Western Pennsylvania, Polk, Pa.
- 1914 Murphy, Wm. A., M. D., Clinical Director State Hospital, Goldsboro, N. C. (*Associate.*)
- 1912 Myers, Glenn E., M. D., Psychiatric Institute, Ward's Island, New York, N. Y. (*Associate.*)

## N

- 1914 Nairn, B. Ross, M. D., 512 Franklin St., Buffalo, N. Y.
- 1896 Neff, Irwin H., M. D., Superintendent Norfolk State Hospital, Pondville, Mass.
- 1913 Neff, Mary Lawson, M. D., Phoenix, Ariz.
- 1914 Neuhaus, George E., M. D., Superintendent Mt. Airy Sanatorium, Denver, Col.
- 1905 Nevin, Ethan A., M. D., Superintendent Custodial Asylum, Newark, N. Y.
- 1913 Nevin, John, M. D., North Hudson Hospital, Jersey City, N. J.
- 1913 Nevitt, C. A., M. D., Superintendent Elmwood Sanitarium, Lexington, Ky.

- 1915 Newcomb, Philip B., M. D., Clinical Director State Hospital, Osawat-  
 omie, Kans. (*Associate.*)
- 1900 Nichols, John H., M. D., Resident Physician and Superintendent State  
 Infirmary, Tewksbury, Mass.
- 1913 Nickerson, Mary A., M. D., Rochester State Hospital, Rochester, N. Y.  
 (*Associate.*)
- 1886 Nims, Edward B., M. D. (formerly Superintendent Northampton In-  
 sane Hospital), 40 Harvard St., Springfield, Mass.
- 1912 Noble, Ermy C., M. D., Assistant Physician Boston State Hospital,  
 Dorchester Centre, Mass. (*Associate.*)
- 1912 Noble, Mary E. Gill, M. D., Assistant Physician Boston State Hos-  
 pital, Dorchester Centre, Mass. (*Associate.*)
- 1903 Norbury, Frank P., M. D., Medical Director, The Norbury Sanatorium,  
 Jacksonville, Ill.
- 1912 Norquay, H. C., M. D., Assistant Superintendent Selkirk Hospital for  
 Insane, Selkirk, Manitoba, Canada. (*Associate.*)
- 1906 North, Charles H., M. D., Superintendent Dannemora State Hospital,  
 Dannemora, N. Y.
- 1914 North, Emerson A., M. D., Resident Physician Cincinnati Sanitarium,  
 Cincinnati, O. (*Associate.*)
- 1907 Norton, Eben C., M. D., Physician-in-Charge Norwood Private Hos-  
 pital for Mental Diseases, Norwood, Mass.

## O

- 1913 O'Brien, John F., M. D., Taunton State Hospital, Taunton, Mass.  
 (*Associate.*)
- 1905 O'Hanlon, George, M. D., Bellevue Hospital, New York, N. Y.
- 1912 O'Harrow, Marian, M. D., Assistant Physician Friends' Hospital,  
 Frankford, P. O. Box 20, Station F, Philadelphia, Pa. (*Asso-  
 ciate.*)
- 1908 O'Malley, Mary, M. D., Senior Assistant Physician, Government Hos-  
 pital for Insane, Washington, D. C. (*Associate.*)
- 1889 Orth, H. L., M. D., Superintendent and Physician Pennsylvania State  
 Lunatic Hospital, Harrisburg, Pa.
- 1907 Orton, Samuel T., M. D., Clinical Director and Pathologist Pennsylv-  
 ania Hospital for Insane, Philadelphia, Pa. (*Associate.*)
- 1910 Osborn, W. S., M. D., 605 Fleming Bldg., Des Moines, Ia.
- 1915 Osnato, Michael, M. D., State Hospital Commission, 1 Madison Ave.,  
 New York City, N. Y.
- 1915 Ostheimer, Alfred, M. D., Philadelphia, Pa.
- 1898 Ostrander, Herman, M. D., Assistant Superintendent Kalamazoo State  
 Hospital, Kalamazoo, Mich.
- 1913 Overholser, M. P., M. D., Superintendent State Hospital No. 3, Nevada,  
 Mo.

## P

- 1907 Packard, Frederick H., M. D., First Assistant Physician McLean Hospital, Waverley, Mass. (*Associate.*)
- 1904 Packer, Flavius, M. D., Physician-in-Charge, West Hill, 261st St. and Broadway, New York, N. Y.
- 1889 Page, Charles W., M. D., 94 Woodland St., Hartford, Conn.
- 1894 Page, H. W., M. D., Superintendent Hospital Cottages for Children, Baldwinville, Mass.
- 1912 Paine, Harlan L., M. D., Assistant Superintendent Gardner State Colony, Gardner, Mass. (*Associate.*)
- 1887 Paine, N. Emmons, M. D. (formerly Superintendent Westborough State Hospital), The Newton Sanatorium, West Newton, Mass.
- 1914 Palmer, E., M. D., Assistant Physician Northern Hospital for Insane, Logansport, Ind. (*Associate.*)
- 1897 Palmer, Harold L., M. D., Superintendent Utica State Hospital, Utica, N. Y.
- 1894 Parant, A. Victor, M. D., Toulouse, France. (*Honorary.*)
- 1912 Parker, Charles S., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1913 Parker, George M., M. D., St. Vincent's Hospital, New York, N. Y.
- 1905 Parsons, Frederick W., M. D., First Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1913 Parsons, Richard H., M. D., Burlington Co. Hospital for Insane, Mt. Holly, N. J.
- 1909 Partlow, William D., M. D., Assistant Superintendent The Bryce Hospital, Tuscaloosa, Ala.
- 1913 Patterson, Christopher J., M. D., Physician-in-Charge, Marshall Sanitarium, Troy, N. Y.
- 1912 Payne, Guy, M. D., Medical Superintendent Essex Co. Hospital for Insane, Cedar Grove, N. J.
- 1897 Pease, Caroline S., M. D., Assistant Physician St. Lawrence State Hospital, Ogdensburg, N. Y. (*Associate.*)
- 1901 Perry, Middleton L., M. D., Superintendent Kansas State Hospital for Epileptics, Parsons, Kans.
- 1893 Peterson, Frederick, M. D., Professor of Psychiatry Columbia University, 20 W. 50th St., New York, N. Y.
- 1912 Peterson, Jessie M., M. D., Resident Physician Department for Women, State Hospital, Norristown, Pa.
- 1913 Petery, Arthur K., M. D., First Assistant Physician State Hospital for the Insane, Norristown, Pa. (*Associate.*)
- 1912 Pettijohn, Abra C., M. D., Room 24, Masonic Temple, Brookfield, Mo.
- 1914 Pfeiffer, J. A. F., M. D., Assistant Physician Government Hospital for Insane, Washington, D. C. (*Associate.*)



- 1913 Phelps, R. M., M. D., Superintendent St. Peter State Hospital, St. Peter, Minn.
- 1910 Pierson, Clarence, M. D., Superintendent East Louisiana Hospital for Insane, Jackson, La.
- 1914 Pierson, Helena B., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1913 Pierson, Sarah G., M. D., Rochester State Hospital, Rochester, N. Y. (*Associate.*)
- 1913 Pietrowicz, Stephen R., M. D., 2134 Pierce Ave., Chicago, Ill.
- 1890 Pilgrim, Chas. W., M. D., Superintendent Hudson River State Hospital, Poughkeepsie, N. Y. (*President, 1911.*)
- 1910 Pitman, Mason W. H., M. D., Riverdale-on-Hudson, New York, N. Y.
- 1914 Poate, Ernest M., M. D., Senior Assistant Physician Manhattan State Hospital, Ward's Island, New York. (*Associate.*)
- 1914 Podall, H. C., M. D., Assistant Physician State Hospital, Norristown, Pa. (*Associate.*)
- 1912 Pogue, Mary E., M. D., Physician-in-Charge, Oak Leigh Sanitarium, Lake Geneva, Wis.
- 1910 Pollock, Henry M., M. D., Superintendent Norwich Hospital for the Insane, Norwich, Conn.
- 1905 Porteous, Carlyle A., M. D., Assistant Superintendent Protestant Hospital for the Insane, New P. O. Box 2280, Special Bag, Montreal, Canada.
- 1911 Porter, William C., M. D., Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1912 Potter, Clarence A., M. D., Medical Superintendent Gowanda State Hospital, Collins, N. Y. (*Associate.*)
- 1892 Potter, Ezra B., M. D., First Assistant Physician Rochester State Hospital, Rochester, N. Y.
- 1913 Potter, Frederick C., M. D., Pathologist Central Indiana Hospital for Insane, Indianapolis, Ind. (*Associate.*)
- 1913 Powers, Herbert Wm., M. D., Milwaukee Sanitarium, Wauwatosa, Wis.
- 1906 Preston, John, M. D., Superintendent State Lunatic Asylum, Austin, Tex.
- 1915 Price, Susan A., M. D., Assistant Physician Eastern State Hospital, Williamsburg, Va.
- 1908 Priddy, A. S., M. D., Superintendent Virginia State Epileptic Colony, Madison Heights, Va.
- 1913 Priestman, Gordon, M. D., Assistant Physician, Willard State Hospital, Willard, N. Y. (*Associate.*)
- 1914 Pritchard, John A., M. D., Senior Assistant Physician St. Lawrence State Hospital, Ogdensburg, N. Y. (*Associate.*)
- 1913 Pritchard, William B., M. D., New York City Hospital, Blackwell's Island, New York, N. Y.
- 1908 Pritchard, William H., M. D., 501 Second Ave., Gallipolis, O.
- 1898 Prout, Thos. P., M. D., Fair Oaks Sanitarium, Summit, N. J.

- 1912 **Purdum, Harry D., M. D.**, Assistant Physician Springfield State Hospital, Sykesville, Md. (*Associate.*)  
 1898 **Putnam, Emma, M. D.**, Poughkeepsie, N. Y.

## Q

- 1879 **Quinby, Hosea M., M. D.** (formerly Medical Superintendent Worcester State Hospital), Worcester, Mass.

## R

- 1910 **Ramsey, William E., M. D.**, Perth Amboy, N. J.  
 1909 **Randolph, James H., M. D.**, St. James Building, Jacksonville, Fla.  
 1894 **Ratliff, J. M., M. D.**, Medical Superintendent Grandview Sanitarium, Price Hill, Cincinnati, O.  
 1913 **Ratliff, Thomas A., M. D.**, Grandview Sanitarium, Price Hill, Cincinnati, O.  
 1909 **Raynor, Mortimer W., M. D.**, Senior Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)  
 1912 **Read, Charles F., M. D.**, Assistant Superintendent Kankakee State Hospital, Kankakee, Ill. (*Associate.*)  
 1913 **Reed, Ralph G., M. D.**, Assistant Physician State Hospital, Central Islip, N. Y. (*Associate.*)  
 1896 **Régis, Emmanuel, M. D.**, Bordeaux, France. (*Honorary.*)  
 1914 **Reid, Eva C., M. D.**, After-Care Physician California State Hospitals, University of California Hospital, San Francisco, Cal. (*Associate.*)  
 1914 **Reily, John A., M. D.**, Superintendent Southern California State Hospital, Patton, Cal.  
 1915 **Reitz, C. B., M. D.**, Pathologist Homeopathic State Hospital, Allentown, Pa. (*Associate.*)  
 1911 **Rhein, John H. W., M. D.**, Professor Diseases of Mind and Nervous System, Philadelphia Polyclinic and College of Medicine, 1732 Pine St., Philadelphia, Pa.  
 1912 **Richards, Cyril G., M. D.**, Assistant Physician Long Island Hospital, Boston Harbor, Mass. (*Associate.*)  
 1911 **Richards, Robert L., M. D.**, Superintendent Mendocino State Hospital, Talmage, Cal.  
 1904 **Richardson, Wm. W., M. D.**, Medical Director The Mercer Sanitarium, Mercer, Pa.  
 1908 **Ricksher, Charles, M. D.**, Pathologist State Psychopathic Institute, Kankakee, Ill.  
 1913 **Ridgway, R. F. L., M. D.**, First Assistant Physician Pennsylvania State Lunatic Hospital, Harrisburg, Pa. (*Associate.*)  
 1902 **Riggs, Charles Eugene, M. D.**, Professor of Nervous and Mental Diseases and Chief of Department Neurology and Psychiatry, University of Minnesota, 10 Crocus Hill, St. Paul, Minn.

- 1911 Riggs, George Henry, M. D., Superintendent Riggs Cottage-Sanitarium, Ijamsville, Md.
- 1910 Ripley, Horace G., M. D., Assistant Superintendent State Hospital, Taunton, Mass.
- 1899 Ritti, Antoine, M. D., Honorary Physician-in-Chief Maison Nationale de Charenton, 68 Boulevard Exelmans, Paris, France. (*Honorary.*)
- 1901 Robertson, Frank W., M. D. (formerly General Superintendent New York State Reformatory at Elmira), 422 West End Ave., New York.
- 1908 Robins, William L., M. D., 1700 13th St., N. W., Washington, D. C.
- 1911 Robinson, G. Wilse, M. D., Superintendent The Punton Sanitarium, Kansas City, Mo.
- 1913 Robinson, Hedley V., M. D., Assistant Physician Protestant Hospital for the Insane, New P. O. Box 2280, Montreal, Que. (*Associate.*)
- 1909 Robinson, W. J., M. D., Superintendent Asylum for the Insane, London, Ontario.
- 1912 Rogers, Arthur W., M. D., Superintendent Oconomowoc Health Resort for Nervous and Mental Diseases, Oconomowoc, Wis.
- 1907 Rogers, Chas. B., M. D., Physician-in-Charge Fair Oaks Villa, Cuyahoga Falls, O. (*Associate.*)
- 1913 Rogers, John B., M. D., Assistant Physician Napa State Hospital, Napa, Cal. (*Associate.*)
- 1912 Rooks, J. T., M. D., Assistant Physician Kankakee State Hospital, Hospital, Ill. (*Associate.*)
- 1909 Rosanoff, A. J., M. D., First Assistant Physician Kings Park State Hospital, Kings Park, N. Y.
- 1915 Ross, Chas. E., M. D., 110 Schweiter Bldg., Wichita, Kans.
- 1907 Ross, Donald L., M. D., Superintendent Connecticut Colony for Epileptics, Mansfield Depot, Conn.
- 1912 Ross, John R., M. D., First Assistant Physician Dannemora State Hospital, Dannemora, N. Y. (*Associate.*)
- 1899 Rowe, John T. W., M. D., First Assistant Physician Manhattan State Hospital, Ward's Island, New York, N. Y.
- 1911 Rowe, Melvin J., M. D., First Assistant Physician Mendocino State Hospital, Talmadge, Cal. (*Associate.*)
- 1912 Rowland, George A., M. D., Assistant Physician Columbus State Hospital, Columbus, O. (*Associate.*)
- 1913 Ruggles, Arthur H., M. D., Assistant Physician Butler Hospital, Providence, R. I. (*Associate.*)
- 1907 Ruland, Frederick D., M. D., Proprietor Dr. Ruland's Sanitarium, Westport, Conn.
- 1912 Runyon, Wm. D., M. D., Assistant Physician State Sanatorium for Treatment of Tuberculosis, Oakdale, Ia. (*Associate.*)
- 1913 Russell, Clarence L., M. D., Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)

- 1912 Russell, Rose A., M.D., Assistant Physician Cherokee State Hospital, Cherokee, Ia. (*Associate.*)
- 1898 Russell, Wm. L., M.D., Superintendent Bloomingdale Hospital, White Plains, N. Y.
- 1907 Ryan, Edward, M.D., Superintendent Rockwood Hospital for the Insane, Kingston, Ontario.
- 1899 Ryon, Walter G., M.D., Medical Inspector for State Hospital Commission, Albany, N. Y.

## S

- 1894 Sachs, B., M.D., 116 W. 59th St., New York, N. Y.
- 1912 Salmon, Thomas W., M.D., National Committee for Mental Hygiene, 50 Union Square, New York, N. Y.
- 1915 Sanborn, Chas. F., M.D., Superintendent Cincinnati Hospital, Cincinnati, Ohio.
- 1908 Sandy, William C., M.D., Medical Director State Hospital for Insane, Columbia, S. C. (*Associate.*)
- 1912 Sanford, Walter H., M.D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1913 Sargent, George F., M.D., Assistant Physician Sheppard and Enoch Pratt Hospital, Towson, Md. (*Associate.*)
- 1913 Saunders, Eleanora B., M.D., Waverley Sanitarium, Columbia, S. C. (*Associate.*)
- 1915 Sawyer, Carl W., M.D., Sawyer Sanatorium, Marion, Ohio.
- 1909 Scanland, J. M., M.D., Superintendent Montana State Hospital, Warm Springs, Mont.
- 1915 Scheetz, Mildred E., M.D., Junior Assistant Physician Government Hospital for the Insane, Washington, D. C. (*Associate.*)
- 1913 Schenkelberger, Frederick P., M.D., Senior Assistant Physician, Gowanda State Hospital, Collins, N. Y. (*Associate.*)
- 1909 Schlapp, Max G., M.D., Lecturer on Neuro-Histology and Pathology, Cornell University, 40 E. 41st St., New York City.
- 1914 Schley, R. Montfort, M.D., 267 Elmwood Ave., Buffalo, N. Y.
- 1894 Schmid, H. Ernest, M.D., White Plains, N. Y.
- 1912 Schneider, C. von A., M.D., First Assistant Physician Gowanda State Hospital, Collins, N. Y. (*Associate.*)
- 1910 Schwinn, George H., M.D., First Assistant Physician Government Hospital for the Insane, Washington, D. C. (*Associate.*)
- 1912 Scott, Thompson P., M.D., First Assistant Physician Topeka State Hospital, Topeka, Kans. (*Associate.*)
- 1886 Scribner, Ernest V., M.D., Medical Superintendent Worcester State Hospital, Worcester, Mass.
- 1893 Searcy, James T., M.D., Medical Superintendent The Alabama Insane Hospitals, Tuscaloosa, Ala. (*President, 1913.*)
- 1894 Searl, Wm. A., M.D., Medical Director Fair Oaks Villa, Cuyahoga Falls, Ohio.



- 1889 Sefton, Frederick, M. D., The Pines, Auburn, N. Y.
- 1897 Semelaigne, René, M. D., Medecin en Chef Maison de Santé, Neuilly sur Seine, Paris, France. (*Honorary.*)
- 1892 Semple, John M., M. D., Spokane, Wash.
- 1908 Seybert, Frank T., M. D., Alienist St. Bernard's Hospital, 532 First Ave., Council Bluffs, Iowa.
- 1903 Shanahan, Wm. T., M. D., Medical Superintendent Craig Colony for Epileptics, Sonyea, N. Y.
- 1903 Sharp, Edw. A., M. D., 481 Franklin St., Buffalo, N. Y.
- 1915 Sharp, Geo. A., M. D., Assistant Physician Mattewan State Hospital, Beacon, N. Y.
- 1913 Shaw, Arthur L., M. D., Assistant Physician Craig Colony for Epileptics, Sonyea, N. Y. (*Trans. to Active in 1916.*)
- 1914 Sheehan, Robert F., M. D., Naval Medical Officer Government Hospital for Insane, Washington, D. C. (*Associate.*)
- 1909 Shellenberger, Edward B., M. D., Assistant Physician State Hospital for Insane, Danville, Pa. (*Associate.*)
- 1904 Shepherd, Arthur F., M. D., Ohio State Board of Administration, Columbus, Ohio.
- 1912 Sherman, Adin, M. D., Superintendent Northern Hospital for Insane, Winnebago, Wis.
- 1905 Shirres, David Alexander, M. D., Consulting Neurologist to the Protestant Hospital for the Insane, 670 W. Sherbrooke St., Montreal, Can.
- 1912 Sights, H. P., M. D., Superintendent Western Kentucky Asylum, Hopkinsville, Ky.
- 1914 Simon, Theodore W., M. D., Senior Assistant Physician State Hospital, Central Islip, N. Y. (*Associate.*)
- 1892 Simpson, J. C., M. D., 1421 Massachusetts Ave., Washington, D. C.
- 1915 Sims, Haig A., M. D., Clinical Assistant Royal Victoria Hospital, 133 Darocher St., Montreal, Can.
- 1910 Skinner, William W., M. D., Consulting Surgeon State Hospital, Willard, N. Y., 449 Main St., Geneva, N. Y.
- 1905 Skoog, A. L., M. D., Associate Professor of Neurology, University of Kansas, 1004 Rialto Building, Kansas City, Mo.
- 1904 Slocum, Clarence J., M. D., Craig House, Beacon-on-Hudson, N. Y. (*Associate.*)
- 1915 Smart, L. Gibbons, M. D., Medical Superintendent Creighton Sanitarium, Lutherville, Md.
- 1915 Smiley, Alton L., M. D., Assistant Physician Colorado Insane Asylum, Pueblo, Colo. (*Associate.*)
- 1885 Smith, Edwin Everett, M. D. (formerly Medical Director New Jersey State Hospital), Kensett, Norwalk, Conn.
- 1898 Smith, Geo. A., M. D., Medical Superintendent Central Islip State Hospital, Central Islip, L. I., N. Y.
- 1902 Smith, Gilbert T., M. D., Noroton, Conn. (*Associate.*)

- 1912 **Smith, H. M., M. D.**, Superintendent New Mexico Insane Asylum, Las Vegas, N. Mex.
- 1913 **Smith, H. V. A., M. D.**, Superintendent Hudson Co. Hospital for Insane, Jersey City, N. J.
- 1915 **Smith, Henry G., M. D.**, Assistant Physician Essex County Hospital, Cedar Grove, N. J. (*Associate.*)
- 1913 **Smith, J. Anson, M. D.**, Camden County Hospital for Insane, Blackwood, N. J.
- 1913 **Smith, J. G. Fowble, M. D.**, Assistant Physician Springfield State Hospital, Sykesville, Md. (*Associate.*)
- 1911 **Smith, Joseph, M. D.**, Assistant Physician Long Island State Hospital, Brooklyn, N. Y. (*Associate.*)
- 1914 **Smith, R. W. Bruce, M. D.**, Inspector of Hospitals and Public Charities, Parliament Building, Toronto, Ont.
- 1912 **Smith, Robert P., M. D.**, Cobb Building, Seattle, Wash.
- 1891 **Smith, S. E., M. D.**, Medical Superintendent Eastern Indiana Hospital for the Insane, "Easthaven," Richmond, Ind. (*President, 1915.*)
- 1885 **Smith, Stephen, M. D.**, 300 Central Park, West, New York, N. Y. (*Honorary.*)
- 1914 **Smithson, Wm. W., M. D.**, Superintendent State Insane Hospital, Asylum, Miss.
- 1911 **Snively, Earl H., M. D.**, Assistant Physician Essex County Hospital for Insane, Cedar Grove, N. J. (*Associate.*)
- 1908 **Solier, Charles H., M. D.**, Superintendent State Hospital, Evanston, Wyo.
- 1898 **Somers, Elbert M., M. D.**, Superintendent Long Island State Hospital, Brooklyn, N. Y.
- 1913 **Somerville, William G., M. D.**, Neurologist City Hospital, Memphis, Tenn.
- 1907 **Southard, Elmer E., M. D.**, Director Psychopathic Department, Boston State Hospital, 70 Francis Ave., Cambridge, Mass.
- 1913 **Spalding, Harry O., M. D.**, Superintendent Westborough State Hospital, Westborough, Mass.
- 1915 **Spaulding, Edith R., M. D.**, Resident Physician Reformatory for Women, South Framingham, Mass. (*Associate.*)
- 1914 **Spear, Irving J., M. D.**, 1810 Madison Ave., Baltimore, Md.
- 1899 **Spence, James Beveridge, M. D., R. U. I., M. Ch.**, Resident Physician and Superintendent Staffordshire County Asylum, Burntwood, near Litchfield, England. (*Honorary.*)
- 1894 **Sprague, Geo. P., M. D.**, Superintendent High Oaks Sanitarium, Lexington, Ky.
- 1914 **Stack, S. S., M. D.**, Superintendent Sacred Heart Sanitarium and St. Mary's Hill Hospital, Milwaukee, Wis.
- 1914 **Stancell, W. W., M. D.**, Assistant Physician State Hospital, Raleigh, N. C. (*Associate.*)

- 1892 Stanley, Charles E., M. D., Assistant Physician Connecticut Hospital for the Insane, Middletown, Conn. (*Associate.*)
- 1913 Stearns, Albert Warren, M. D., 520 Commonwealth Ave., Boston, Mass.
- 1898 Stearns, Wm. G., M. D., 25 E. Washington St., Chicago, Ill.
- 1914 Steckel, Harry A., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1884 Stedman, Henry R., M. D., Bournewood Private Hospital for Nervous and Mental Diseases, South St., Brookline, Mass.
- 1895 Stevens, Frank T., M. D., 609 Exchange National Bank Building, Colorado Springs, Colo.
- 1915 Stevenson, W. W., M. D., Assistant Physician Trenton State Hospital, Trenton, N. J. (*Associate.*)
- 1894 Stewart, Nolan, M. D. (formerly Superintendent State Insane Hospital), Jackson, Miss.
- 1914 Stewart, Robert A., M. D., Second Assistant Physician State Hospital, Norristown, Pa. (*Associate.*)
- 1907 Stick, H. Louis, M. D., Superintendent Grafton State Hospital, Worcester, Mass.
- 1904 Stockton, Geo., M. D. (formerly Superintendent Columbus State Hospital), 151 E. Broad St., Columbus, O.
- 1909 Stone, Elmer E., M. D. (formerly Superintendent Napa State Hospital, Napa, Cal.), 291 Geary St., San Francisco, Cal.
- 1892 Stone, William A., M. D. (formerly Assistant Superintendent Michigan Asylum for the Insane), 1102 W. Main St., Kalamazoo, Mich.
- 1914 Strecker, Edward A., M. D., Assistant Physician Pennsylvania Hospital for Insane, Philadelphia, Pa. (*Associate.*)
- 1913 Sturgis, Karl B., M. D., Assistant Physician Maine Insane Hospital, Augusta, Me. (*Associate.*)
- 1912 Sullivan, F. J., M. D., Kankakee State Hospital, Hospital, Ill. (*Associate.*)
- 1903 Swift, Henry M., M. D., 655 Congress St., Portland, Me.
- 1914 Swift, Walter B., M. D., 110 Bay State Road, Boston, Mass.
- 1894 Sylvester, William E., M. D., Lincoln Wood-on-Canandaigua Lake, N. Y.

## T

- 1899 Taddiken, Paul Gerald, M. D., First Assistant Physician St. Lawrence State Hospital, Ogdensburg, N. Y. (*Associate.*)
- 1915 Taft, Arnie E., M. D., Curator, Department of Neuropathology Harvard University, 240 Longwood Ave., Boston, Mass. (*Associate.*)
- 1881 Tamburini, A., M. D., Reggio-Emilia, Italy. (*Honorary.*)
- 1914 Taylor, Herbert W., M. D., First Assistant Physician Brattleboro Retreat, Brattleboro, Vt. (*Associate.*)

- 1892 Taylor, Isaac M., M. D., Superintendent Broadoaks Sanatorium, Morganton, N. C.
- 1915 Taylor, Melvin J., M. D., Assistant Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1915 Taylor, Wesley, M. D., Detroit, Mich.
- 1910 Terflinger, Fred. W., M. D., Medical Superintendent Northern Hospital for Insane, Logansport, Indiana.
- 1915 Thom, Douglas A., M. D., Pathologist Monsen State Hospital, Palmer, Mass. (*Associate.*)
- 1914 Thomas, John N., M. D., Superintendent Louisiana Hospital for Insane, Pineville, La.
- 1906 Thompson, Charles E., M. D., Superintendent Gardner State Colony, Gardner, Mass.
- 1915 Thompson, Chas. W., M. D., Assistant Superintendent Woodcroft, Pueblo, Colo.
- 1891 Thompson, J. L., M. D., Assistant Physician State Hospital for the Insane, Columbia, S. C. (*Associate.*)
- 1896 Thompson, Whitefield N., M. D., Medical Superintendent The Hartford Retreat, Hartford, Conn.
- 1915 Thomson, E. Mabel, M. D., Woman Physician Craig Colony for Epileptics, Sonyea, N. Y. (*Associate.*)
- 1914 Thorne, Frederic H., M. D., Pathologist New Jersey State Hospital, Morris Plains, N. J. (*Associate.*)
- 1912 Throckmorton, Tom B., M. D., 407 Equitable Building, Des Moines, Ia. (*Associate.*)
- 1914 Thurlow, A. A., M. D., First Assistant Physician Oklahoma Hospital for Insane, Norman, Okla. (*Associate.*)
- 1912 Tiffany, William J., M. D., Senior Assistant Physician Binghamton State Hospital, Binghamton, N. Y. (*Associate.*)
- 1912 Todd, Leona E., M. D., Woman Physician Hudson River State Hospital, Poughkeepsie, N. Y. (*Associate.*)
- 1912 Toomey, Joseph H., M. D., State Hospital for Insane, Howard, R. I. (*Associate.*)
- 1901 Torney, Geo. H., Jr., M. D., Associate Physician Bournemouth Hospital, South St., Brookline, Mass.
- 1902 Toulouse, Edouard, M. D., Physician-in-Chief to Villejuif Asylum; Director Revue de Psychiatrie; Director of Laboratory of Experimental Psychology, l'Ecole des Hautes Etudes, Paris; Villejuif (Seine), France. (*Honorary.*)
- 1899 Townsend, Theodore Irving, M. D., First Assistant Physician Binghamton State Hospital, Binghamton, N. Y.
- 1913 Trader, Wm. N., M. D., Assistant Physician Craig Colony for Epileptics, Sonyea, N. Y. (*Associate.*)
- 1914 Travis, John H., M. D., Southeastern Hospital for Insane, Madison, Ind. (*Associate.*)



- 1912 Treadway, Walter L., M. D., Assistant Surgeon U. S. Public Health Service, Ellis Island, New York.
- 1912 Trenkle, Henry L., M. D., Physician-in-Charge Knickerbocker Hall, Amityville, L. I. (*Associate.*)
- 1915 Troxell, Geo. Allen, M. D., Assistant Physician Medfield State Hospital, Harding, Mass. (*Associate.*)
- 1914 Trueman, Nelson G., M. D., Assistant Physician Danvers State Hospital, Hathorne, Mass. (*Associate.*)
- 1912 Truitt, R. P., M. D., Clinical Director East Louisiana Hospital for Insane, Jackson, La.
- 1901 Turner, John S., M. D., 326-27 Linz Bldg., Dallas, Texas.
- 1913 Turner, Reeve, M. D., 522 West 149th St., New York, N. Y.
- 1892 Tuttle, Geo. T., M. D., Medical Superintendent McLean Hospital, Waverley, Mass.
- 1908 Twohey, John J., M. D., Physician-in-Charge Providence Retreat, Buffalo, N. Y.
- 1909 Tyson, Forrest C., M. D., Superintendent Augusta State Hospital, Augusta, Me.

## U

- 1909 Uhls, L. L., M. D., The Uhls Sanitarium, Overland Park, Kans.
- 1914 Ullman, Albert E., M. D., Senior Assistant Physician State Hospital, Central Islip, N. Y. (*Associate.*)
- 1899 Urquhart, Alexander R., M. D., F. R. C. P. E., Superintendent Royal Asylum, Perth, Scotland. (*Honorary.*)

## V

- 1915 Van Nuys, Walter C., M. D., Superintendent Indiana Village for Epileptics, Newcastle, Ind.
- 1911 VanWart, Roy McLean, M. D., Visiting Physician to Nervous Wards of Charity Hospital, 1126 Maison Blanche Building, New Orleans, La.
- 1907 Vaughan, P. H. S., M. D., Yarmouth, Me.
- 1913 Vaux, Charles L., M. D., Senior Assistant Physician, State Hospital, Central Islip, N. Y. (*Associate.*)
- 1912 Veeder, Willard H., M. D., Assistant Physician Rochester State Hospital, Rochester, N. Y. (*Associate.*)
- 1896 Villeneuve, George, M. D., Medical Superintendent Saint Jean de Dieu Hospital, New P. O. Box 2947, Montreal, Que.
- 1893 Voldeng, M. Nelson, M. D., Superintendent The State Hospital and Colony Epileptics, Woodward, Iowa.
- 1912 Vosburgh, Stephen E., M. D., Assistant Superintendent Maine Insane Hospital, Augusta, Me. (*Associate.*)

## W

- 1895 Wade, J. Percy, M. D., Medical Superintendent Spring Grove State Hospital, Catonsville, Md.
- 1890 Wagner, Charles G., M. D., Medical Superintendent Binghamton State Hospital, Binghamton, N. Y. (*Secretary and Treasurer.*)
- 1912 Walker, Eloise, M. D., Woman Physician, Binghamton State Hospital, Binghamton, N. Y. (*Associate.*)
- 1905 Walker, Irving Lee, M. D., Assistant Physician Rochester State Hospital, Rochester, N. Y. (*Associate.*)
- 1905 Walker, Lewis M., M. D., First Assistant Physician Medfield State Hospital, Harding, Mass.
- 1914 Walker, N. P., M. D., Assistant Physician Georgia State Sanitarium, Milledgeville, Ga. (*Associate.*)
- 1913 Wardner, Drew M., M. D., Assistant Physician Essex County Hospital for Insane, Cedar Grove, N. J. (*Associate.*)
- 1912 Washburn, Philip C., M. D., Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1912 Waterman, Chester, M. D., Assistant Physician Willard State Hospital, Willard, N. Y. (*Associate.*)
- 1914 Waterman, Paul, M. D., Assistant Neurologist Hartford Hospital, Hartford, Conn.
- 1913 Webster, B. R., M. D., Assistant Physician Matteawan State Hospital, Beacon, N. Y. (*Associate.*)
- 1910 Weeks, David F., M. D., Medical Superintendent and Executive Officer New Jersey State Village for Epileptics, Skillman, N. J.
- 1913 Weisenburg, T. H., M. D., 2030 Chestnut St., Philadelphia, Pa.
- 1893 Welch, G. O., M. D., Medical Superintendent Fergus Falls State Hospital, Fergus Falls, Minn.
- 1915 Wen Glesky, J. F., M. D., Resident Physician St. Mary's Hill, Milwaukee, Wis.
- 1892 Wentworth, Lowell F., M. D., Deputy Executive Officer State Board of Insanity, 36 State House, Boston, Mass.
- 1914 Wescott, Adeline M., M. D., St. Luke's Hospital, Newburgh, N. Y. (*Associate.*)
- 1904 West, Calvin B., M. D., Senior Assistant Physician Kings Park State Hospital, Kings Park, N. Y. (*Associate.*)
- 1912 Weston, Paul G., M. D., Pathologist State Hospital, Warren, Pa. (*Associate.*)
- 1912 White, F. S., M. D., Superintendent Southwestern Insane Asylum, San Antonio, Tex.
- 1906 White, Grace E., M. D., Wood Lea Sanitarium, 300 Ardmore Ave., Ardmore, Pa. (*Associate.*)
- 1891 White, M. J., M. D., Medical Superintendent Milwaukee Hospital for the Insane, Wauwatosa, Wis.
- 1902 White, Wm. A., M. D., Superintendent Government Hospital for the Insane, Washington, D. C.

- 1909 White, William Rushmore, M.D., Superintendent Patapsco Manor Sanitarium, Ellicott City, Md.
- 1912 Whitney, Ray L., M.D., Assistant Physician McLean Hospital, Waverley, Mass. (*Associate.*)
- 1914 Wholey, Cornelius C., M.D., 4616 Bayard St., E. E., Pittsburgh, Pa.
- 1915 Wickers, Mary, M.D., Woman Physician Eastern Indiana Hospital, Richmond, Ind. (*Associate.*)
- 1903 Wilcox, Franklin S., M.D., Assistant Superintendent Southern California State Hospital, Patton, Cal. (*Associate.*)
- 1898 Wilgus, Sidney D., M.D., Superintendent and Proprietor The Ransom Sanitarium, Box 304, Rockford, Ill.
- 1913 Williams, B. F., M.D., Superintendent Nebraska Hospital for Insane, Lincoln, Neb.
- 1906 Williams, Berthold A., M.D., Senior Resident Physician, Cincinnati Sanitarium, College Hill, Ohio.
- 1904 Williams, G. H., M.D., Assistant Physician Columbus State Hospital, Columbus, Ohio.
- 1910 Williams, Tom A., M.D., 1705 W St., N. W., Washington, D. C.
- 1884 Williamson, Alonzo P., M.D., 842 N. Second St., Santa Monica, Cal.
- 1888 Wilsey, O. J., M.D., Physician-in-Charge Long Island Home, Amityville, N. Y.
- 1914 Wilson, Anita A., M.D., Junior Assistant Physician Government Hospital for Insane, Washington, D. C. (*Associate.*)
- 1910 Wilson, William T., M.D., Superintendent Hospital for the Insane, Penetanguishene, Ont.
- 1907 Winterode, Robert P., M.D., Superintendent Crownsville State Hospital, Crownsville, Md.
- 1912 Wiseman, John I., M.D., Assistant Physician Boston State Hospital, Dorchester Centre, Mass. (*Associate.*)
- 1913 Wiswall, Edward H., M.D., Proprietor Wellesley Nervine, Wellesley, Mass.
- 1895 Witte, M. E., M.D., Medical Superintendent Clarinda State Hospital, Clarinda, Ia.
- 1902 Wolfe, Mary Moore, M.D., 29 S. 3d St., Lewisburg, Pa.
- 1913 Wolff, George B., M.D., Clinical Assistant Sheppard and Enoch Pratt Hospital, Towson, Md. (*Associate.*)
- 1910 Woodbury, Frank, M.D., Secretary Committee on Lunacy State of Pennsylvania, 717 Bulletin Building, Philadelphia, Pa.
- 1907 Woodman, Robert C., M.D., First Assistant Physician Middletown State Homeopathic Hospital, Middletown, N. Y. (*Associate.*)
- 1890 Woodson, C. R., M.D., Dr. C. R. Woodson's Sanitarium, St. Joseph, Mo.
- 1911 Woodward, Esther S. B., M.D., Assistant Physician Norwich State Hospital, Norwich, Conn.
- 1906 Worcester, Samuel, M.D., 1075 Stanton St., Portland, Ore.
- 1901 Work, Hubert, M.D., Superintendent Woodcroft Hospital for Nervous Diseases, Pueblo, Col. (*President, 1912.*)

- 1915 Wright, Harold W., M. D., Physicians' Bldg., San Francisco, Cal.  
 1893 Wright, W. E., M. D., 204-206 State St., Harrisburg, Pa. (*Associate.*)  
 1912 Wright, Wm. W., M. D., Psychiatric Institute, Ward's Island, New York, N. Y. (*Associate.*)

## Y

- 1912 Yarbrough, Y. H., M. D., Assistant Physician Georgia State Sanitarium, Milledgeville, Ga.  
 1894 Yellowlees, David, M. D., L. R. C. S., Edin., F. F. P. S. and LL. D., Glasgow (formerly Physician Superintendent Glasgow Royal Asylum, Gartnavel), 6 Albert Gate, Dowanhill, Glasgow, Scotland. (*Honorary.*)  
 1912 Yeretzian, K. H., M. D., Assistant Physician Columbus State Hospital, Columbus, O. (*Associate.*)  
 1906 Young, David, M. D. (formerly Superintendent Asylum for the Insane, Selkirk, Manitoba, Canada), 494 Camden Place, Winnipeg, Manitoba, Canada.  
 1915 Young, Ernest H., M. D., Assistant Superintendent Rockwood Hospital, Kingston, Ontario, Can.  
 1914 Young, Hugh Hampton, M. D., President State Lunacy Commission of Maryland, 330 N. Charles St., Baltimore, Md. (*Honorary.*)  
 1906 Youngling, George S., M. D., Consulting Physician Central Islip State Hospital, 453 West 34th St., New York, N. Y.  
 1913 Yule, Lorne W., M. D., Assistant Physician Northern Hospital for Insane, Logansport, Ind. (*Associate.*)

## Z

- 1906 Zeller, George A., M. D., Alienist State Board of Administration, Peoria, Ill.



## LIFE MEMBERS

---

- 1883 Charles P. Bancroft, M. D., Concord, N. H.  
1883 Sanger Brown, M. D., Kenilworth, Ill.  
1885 Michael Campbell, M. D., Bearden, Tenn.  
1880 Walter Channing, M. D., Brookline, Mass.  
1867 John B. Chapin, M. D., Canandaigua, N. Y.  
1883 Robert H. Chase, M. D., Philadelphia, Pa.  
1885 Chas. K. Clarke, M. D., Toronto, Can.  
1881 Edward Cowles, M. D., Plymouth, Mass.  
1881 Richard Dewey, M. D., Wauwatosa, Wis.  
1883 Charles G. Hill, M. D., Baltimore, Md.  
1883 Gershom H. Hill, M. D., Des Moines, Ia.  
1867 Charles H. Hughes, M. D., St. Louis, Mo.  
1879 Henry M. Hurd, M. D., Baltimore, Md.  
1872 Theodore H. Kellogg, M. D., New York, N. Y.  
1882 Shailer E. Lawton, M. D., Brattleboro, Vt.  
1882 Samuel B. Lyon, M. D., White Plains, N. Y.  
1874 Carlos F. MacDonald, M. D., New York, N. Y.  
1879 Hosea M. Quinby, M. D., Worcester, Mass.  
1885 Edwin E. Smith, Norwalk, Conn.  
1884 Henry R. Stedman, M. D., Brookline, Mass.  
1884 Alonzo P. Williamson, M. D., Santa Monica, Cal.

## HONORARY MEMBERS

- 1890 Henry M. Bannister, M. D., Evanston, Ill.  
 1898 James M. Buckley, D. D., LL. D., Morristown, N. J.  
 1908 Shepherd I. Franz, A. B., Ph. D., Washington, D. C.  
 1891 G. Stanley Hall, Ph. D., LL. D., Worcester, Mass.  
 1899 Henry Hun, M. D., Albany, N. Y.  
 1896 Jules Morel, M. D., Ghent, Belgium.  
 1881 A. Motet, M. D., Paris, France.  
 1894 A. Victor Parant, M. D., Toulouse, France.  
 1896 Emmanuel Régis, M. D., Bordeaux, France.  
 1899 Antoine Ritti, M. D., Charenton, près Paris, France.  
 1897 René Semelaigne, M. D., Paris, France.  
 1885 Stephen Smith, M. D., New York, N. Y.  
 1899 James Beveridge Spence, M. D., R. U. I. M. Ch., Burntwood, England  
 1881 A Tamburini M. D., Reggio-Emilia, Italy.  
 1902 Edouard Toulouse, M. D., Villejuif, France.  
 1899 Alexander R. Urquhart, M. D., F. R. C. P. E., Perth, Scotland.  
 1894 David Yellowlees, M. D., F. F. P. S., LL. D., Glasgow, Scotland.  
 1914 Hugh Hampton Young, M. D., Baltimore, Md.

### Total Membership:

Active .....	465
Associate .....	323
Life .....	21
Honorary .....	18

Total .....827

The following tabulation shows the membership of the Association for the past decade:

Members	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916
Active.....	286	307	325	339	337	360	398	457	457	465
Associate.....	109	119	117	134	134	133	203	250	289	323
Life.....									17	21
Honorary.....	24	24	24	24	22	21	20	19	19	18
Total.....	419	450	466	497	493	514	621	726	782	827

NOTE.—It will be observed that the list of members as here printed shows the date when each member became identified with the Association. This arrangement is believed to be a valuable addition to the list which will be appreciated.

## NECROLOGY

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- Uranus O. Wingate, M. D., Milwaukee, Wis. Died February 18, 1911.  
 I. W. Blackburn, M. D., Washington, D. C. Died June 18, 1911.  
 A. J. Lyons, M. D., Spencer, W. Va. Died June 1, 1911.  
 J. Elvin Courtney, M. D., Denver, Col. Died June 22, 1911.  
 J. N. Whitaker, M. D., Milledgeville, Ga. Died August 11, 1911.  
 Robert E. Doran, M. D., Brooklyn, N. Y. Died Sept. 23, 1911.  
 George F. Jelly, M. D., Boston, Mass. Died Oct. 24, 1911.  
 D. R. Wallace, M. D., Waco, Tex. Died Nov. 22, 1911.  
 Merritt B. Campbell, M. D., Heber, Cal. Died Dec. 1, 1911.  
 James McKee, M. D., Raleigh, N. C. Died January 10, 1912.  
 Morris S. Guth, M. D., Erie, Pa. Died March 27, 1912.  
 Horace W. Eggleston, M. D., Binghamton, N. Y. Died April 11, 1912.  
 Thomas J. Mitchell, M. D., Jackson, Miss. Died Sept. 16, 1912.  
 Daniel Clark, M. D., Toronto, Ont. Died Sept., 1912.  
 George H. Knight, M. D., Lakeville, Conn. Died Oct. 4, 1912.  
 George C. Crandall, M. D., St. Louis, Mo. Died Dec. 5, 1912.  
 George Smith Adams, M. D., Stamford, Ct. Died March 16, 1913.  
 Henry S. Upson, M. D., Cleveland, O. Died April 23, 1913.  
 H. A. Tomlinson, M. D., Willmar, Minn. Died May 30, 1913.  
 E. H. Pomeroy, M. D., Bradentown, Fla. Died June 22, 1913.  
 S. Weir Mitchell, M. D., Philadelphia, Pa. Died Jan. 4, 1914.  
 Edward W. King, M. D., San Francisco, Cal. Died Jan. 11, 1914.  
 Thomas J. Moher, M. D., Cobourg, Ont. Died Feb. 24, 1914.  
 Henry C. Baldwin, M. D., Boston, Mass. Died February 25, 1914.  
 Ralph L. Parsons, M. D., Ossining, N. Y. Died Feb. 26, 1914.  
 R. J. Dysart, M. D., Winnebago, Wis., Died May 26, 1914.  
 Brooks F. Beebe, M. D., Cincinnati, O. Died May 29, 1914.  
 Wm. B. Moseley, M. D., Brooklyn, N. Y. Died June 26, 1914.  
 Samuel F. Mellen, M. D., Poughkeepsie, N. Y. Died July 15, 1914.  
 Oscar R. Long, M. D., Ionia, Mich. Died Sept. 9, 1914.  
 Theodore Fisher, M. D., Boston, Mass. Died October 10, 1914.  
 Wesley Mills, M. D., Montreal, Que. Died February 13, 1915.  
 Henry S. Noble, M. D., Middletown, Conn. Died March 16, 1915.  
 Albert R. Moulton, M. D., Philadelphia, Pa. Died August 16, 1915.  
 John M. Bemis, M. D., Worcester, Mass. Died September 22, 1915.  
 Austin Flint, M. D., New York, N. Y. Died September 22, 1915.  
 Wm. Noyes, M. D., Jamaica Plains, Mass. Died October 20, 1915.  
 Alfred I. Noble, M. D., Kalamazoo, Mich. Died January 20, 1916.

## RESIGNATIONS

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Harry Lee Barnes, M. D., Wallum Lake, R. I.  
James R. Bolton, M. D., Fishkill-on-Hudson, N. Y.  
George V. N. Dearborn, M. D., Boston, Mass.  
Hugh H. Dorr, M. D., Batesville, O.  
Charles A. Drew, M. D., Worcester, Mass.  
Bernard Feldstein, M. D., Kings Park, N. Y.  
Charles M. Franklin, M. D., Baltimore, Md.  
Frank R. Fry, M. D., St. Louis, Mo.  
S. Adolphus Knopf, M. D., New York, N. Y.  
John J. Mac Phee, M. D., New York, N. Y.  
Elizabeth Spencer McCall, M. D., Bryn Mawr, Pa.  
John Punton, M. D., Kansas City, Mo.  
Arthur E. Simonis, M. D., Pennhurst, Pa.  
W. A. Taylor, M. D., Trenton, N. J.  
A. W. Thomson, M. D., Poughkeepsie, N. Y.  
Ralph S. Pettibone, M. D., Willard, N. Y.  
Eben C. Norton, M. D., Norwood, Mass.



## PRESIDENTS OF THE ASSOCIATION

---

Samuel B. Woodward, M. D., Worcester, Mass.....	1844-1848
William McClay Awt, M. D., Columbus, Ohio.....	1848-1851
Luther V. Bell, M. D., Somerville, Mass.....	1851-1855
Isaac Ray, M. D., Providence, R. I.....	1855-1859
Andrew McFarland, M. D., Concord, N. H.....	1859-1862
Thomas S. Kirkbride, M. D., Philadelphia, Pa.....	1862-1870
John S. Butler, M. D., Hartford, Ct.....	1870-1873
Charles H. Nichols, M. D., Bloomingdale, N. Y.....	1873-1879
Clement A. Walker, M. D., Boston, Mass.....	1879-1882
John H. Callender, M. D., Nashville, Tenn.....	1882-1883
John P. Gray, M. D., Utica, N. Y.....	1883-1884
Pliny Earle, M. D., Northampton, Mass.....	1884-1885
Orpheus Everts, M. D., Cincinnati, Ohio.....	1885-1886
H. A. Buttolph, M. D., Short Hills, N. J.....	1886-1887
Eugene Grissom, M. D., Raleigh, N. C.....	1887-1888
John B. Chapin, M. D., Philadelphia, Pa.....	1888-1889
W. W. Godding, M. D., Washington, D. C.....	1889-1890
H. P. Stearns, M. D., Hartford, Ct.....	1890-1891
Daniel Clark, M. D., Toronto, Canada.....	1891-1892
J. B. Andrews, M. D., Buffalo, N. Y.....	1892-1893
John Curwen, M. D., Warren, Pa.....	1893-1894
Edward Cowles, M. D., Somerville, Mass.....	1894-1895
Richard Dewey, M. D., Wauwatosa, Wis.....	1895-1896
Theophilus O. Powell, M. D., Milledgeville, Ga.....	1896-1897
Richard M. Bucke, M. D., London, Ontario.....	1897-1898
Henry M. Hurd, M. D., Baltimore, Md.....	1898-1899
Joseph G. Rogers, M. D., Logansport, Ind.....	1899-1900
Peter M. Wise, M. D., New York, N. Y.....	1900-1901
Robert J. Preston, M. D., Marion, Va.....	1901-1902
G. Alder Blumer, M. D., Providence, R. I.....	1902-1903
A. B. Richardson, M. D., Washington, D. C. } ..(died before taking office)	
A. E. Macdonald, M. D., New York, N. Y. } ..	1903-1904
T. J. W. Burgess, M. D., Montreal, Canada.....	1904-1905
C. B. Burr, M. D., Flint, Mich.....	1905-1906
Charles G. Hill, M. D., Baltimore, Md.....	1906-1907
Charles P. Bancroft, M. D., Concord, N. H.....	1907-1908
Arthur F. Kilbourne, M. D., Rochester, Minn.....	1908-1909
William F. Drewry, M. D., Petersburg, Va.....	1909-1910
Charles W. Pilgrim, M. D., Poughkeepsie, N. Y.....	1910-1911
Hubert Work, M. D., Pueblo, Col.....	1911-1912
James T. Searcy, M. D., Tuscaloosa, Ala.....	1912-1913
Carlos F. MacDonald, M. D., New York, N. Y.....	1913-1914
Samuel E. Smith, M. D., Richmond, Ind.....	1914-1915
Edward N. Brush, M. D., Baltimore, Md.....	1915-1916

## SECRETARIES OF THE ASSOCIATION

---

Thomas S. Kirkbride, M. D., Philadelphia, Pa.....	1844-1852
H. A. Buttolph, M. D., Short Hills, N. J.....	1852-1854
Charles H. Nichols, M. D., Washington, D. C.....	1854-1858
John Curwen, M. D., Warren, Pa.....	1858-1893
Henry M. Hurd, M. D., Baltimore, Md.....	1893-1897
C. B. Burr, M. D., Flint, Mich.....	1897-1904
E. C. Dent, M. D., New York, N. Y.....	1904-1906
Charles W. Pilgrim, M. D., Poughkeepsie, N. Y.....	1906-1909
Charles G. Wagner, M. D., Binghamton, N. Y.....	1909-1915
Henry C. Eyman, M. D., Massillon, Ohio.....	1915-

# MEETING PLACES OF ASSOCIATION OF MEDICAL SUPERINTENDENTS OF AMERICAN IN- STITUTIONS FOR THE INSANE

1st	1844	Philadelphia, Pa., Jones Hotel, Oct. 16, 1844.
		Pres., Dr. Samuel B. Woodward.
		Vice-Pres., Dr. Samuel White.
		Sec.-Treas., Dr. Thomas S. Kirkbride.
	1845	No meeting held.
2d	1846	Washington, D. C.
	1847	No meeting held.
3d	1848	New York, N. Y.
4th	1849	Utica, N. Y.
5th	1850	Boston, Mass.
6th	1851	Philadelphia, Pa.
7th	1852	New York, N. Y.
8th	1853	Baltimore, Md.
9th	1854	Washington, D. C.
10th	1855	Boston, Mass.
11th	1856	Cincinnati, Ohio.
12th	1857	New York, N. Y.
13th	1858	Quebec, Que.
14th	1859	Lexington, Ky.
15th	1860	Philadelphia, Pa.
	1861	No meeting held on account of the disturbed condition of the country.
16th	1862	Providence, R. I.
17th	1863	New York, N. Y.
18th	1864	Washington, D. C.
19th	1865	Pittsburgh, Pa.
20th	1866	Washington, D. C.
21st	1867	Philadelphia, Pa.
22d	1868	Boston, Mass.
23d	1869	Staunton, Va.
24th	1870	Hartford, Conn.
25th	1871	Toronto, Ont.
26th	1872	Madison, Wis.
27th	1873	Baltimore, Md.
28th	1874	Nashville, Tenn.
29th	1875	Auburn, N. Y.
30th	1876	Philadelphia, Pa.
31st	1877	St. Louis, Mo.
32d	1878	Washington, D. C.
33d	1879	Providence, R. I.
34th	1880	Philadelphia, Pa.
35th	1881	Toronto, Ont.
36th	1882	Cincinnati, Ohio.
37th	1883	Newport, R. I.
38th	1884	Philadelphia, Pa.
39th	1885	Saratoga, N. Y.
40th	1886	Lexington, Ky.
41st	1887	Detroit, Mich.
42d	1888	Fortress Monroe, Va.
43d	1889	Newport, R. I.
44th	1890	Niagara Falls, N. Y.
45th	1891	Washington, D. C.
46th	1892	Washington, D. C.
		New constitution adopted.
		Name changed to American Medico-Psychological Ass'n.
47th	1893	Chicago, Ill.
50th	1894	Philadelphia, Pa.
		Fiftieth year since foundation.
		Semi-centennial.
		Number of meetings changed.
		Proceedings published in separate volume.
51st	1895	Denver, Col.
52d	1896	Boston, Mass.
53d	1897	Baltimore, Md.
54th	1898	St. Louis, Mo.
55th	1899	New York, N. Y.
56th	1900	Richmond, Va.
57th	1901	Milwaukee, Wis.
58th	1902	Montreal, Que.
59th	1903	Washington, D. C.
60th	1904	St. Louis, Mo.
61st	1905	San Antonio, Tex.
62d	1906	Boston, Mass.
63d	1907	Washington, D. C.
64th	1908	Cincinnati, Ohio.
65th	1909	Atlantic City, N. J.
66th	1910	Washington, D. C.
67th	1911	Denver, Col.
68th	1912	Atlantic City, N. J.
69th	1913	Niagara Falls, Ont.
70th	1914	Baltimore, Md.
71st	1915	Fortress Monroe, Va.
72d	1916	New Orleans, La.

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**DAYTON SANITARIUM, DAYTON.**

No members.

**DAYTON STATE HOSPITAL, DAYTON.**

Armitage Baber, M. D., Superintendent.

Edgar L. Braunlin, M. D., First Assistant Physician.

**OHIO—Continued.**

FAIR OAKS VILLA, CUYAHOGA FALLS.

William A. Searl, M. D., Medical Director.

Chas. B. Rogers, M. D., Physician-in-Charge.

H. Irving Cozad, M. D., Clinical Director.

GRANDVIEW SANITARIUM, CINCINNATI.

J. M. Ratliff, M. D., Superintendent.

Thomas A. Ratliff, M. D.

INSTITUTION FOR FEEBLE-MINDED, COLUMBUS.

E. J. Emerick, M. D., Superintendent.

LONGVIEW HOSPITAL, CINCINNATI.

F. W. Harmon, M. D., Superintendent.

MASSILLON STATE HOSPITAL, MASSILLON.

H. C. Eyman, M. D., Superintendent.

Paul J. Alspaugh, M. D., Assistant Physician.

OHIO HOSPITAL FOR EPILEPTICS, GALLIPOLIS.

G. G. Kineon, M. D., Superintendent.

OHIO STATE HOSPITAL FOR CRIMINAL INSANE, LIMA.

Chas. H. Clark, M. D., Superintendent.

ORCHARD SPRINGS SANITARIUM, DAYTON.

John Cecil George, M. D., Physician-in-Charge.

OXFORD RETREAT, OXFORD.

R. Harvey Cook, M. D., Physician-in-Chief.

SAWYER SANITARIUM, MARION, O.

Chas. W. Sawyer, M. D., Physician.

TOLEDO STATE HOSPITAL, TOLEDO.

George R. Love, M. D., Superintendent.

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Isabel A. Bradley, M. D., Akron.

Howard M. Brundage, M. D., Columbus.

W. D. Deuschle, M. D., Columbus.

H. H. Drysdale, M. D., Cleveland.

George T. Harding, M. D., Columbus.

A. B. Howard, M. D., Cleveland.

Robert Ingram, M. D., Cincinnati.

Fletcher Langdon, M. D., Cincinnati.

J. M. Lewis, M. D., Cleveland.

William H. Pritchard, M. D., Gallipolis.

Chas. F. Sanborn, M. D., Cincinnati.

Arthur F. Shepherd, M. D., Columbus.

George Stockton, M. D., Columbus.



**OKLAHOMA—EAST OKLAHOMA HOSPITAL, VINITA.**

No members.

**OKLAHOMA INSTITUTION FOR FEEBLE-MINDED.**

No members.

**OKLAHOMA STATE HOSPITAL SUPPLY.**

No members.

**STATE HOSPITAL FOR THE INSANE, NORMAN.**

D. W. Griffin, M. D., Superintendent.

A. A. Thurlow, M. D., First Assistant Physician.

**OREGON—CRYSTAL SPRINGS, PORTLAND.**

Henry Waldo Coe, M. D., Medical Director.

**EASTERN OREGON STATE HOSPITAL, PENDLETON.**

John I. McKelway, M. D., Second Assistant Superintendent.

**STATE INSANE ASYLUM, SALEM.**

No members.

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Samuel Worcester, M. D., Portland.

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**PENNSYLVANIA—BLAIR COUNTY HOSPITAL FOR INSANE, HOLLIDAYSBURG.**

No members.

**DIXMONT HOSPITAL FOR THE INSANE, DIXMONT.**

Henry A. Hutchinson, M. D., Superintendent.

**EASTERN PA. STATE INSTITUTION FOR FEEBLE-MINDED AND EPILEPTIC,  
PENNHRUST.**

No members.

**EASTON SANITARIUM, EASTON.**

C. Spencer Kinney, M. D., Proprietor.

**FRIENDS' HOSPITAL FOR THE INSANE, FRANKFORD, PHILADELPHIA.**

Robert H. Chase, M. D., Superintendent.

Albert C. Buckley, M. D., Assistant Physician.

Marian O'Harrow, M. D., Assistant Physician.

**HOSPITAL FOR THE INSANE OF LUZERNE COUNTY, RETREAT.**

Charles B. Mayberry, M. D., Superintendent.

**PENNSYLVANIA EPILEPTIC HOSPITAL, OAKBOURNE.**

No members.

**PENNSYLVANIA HOSPITAL FOR THE INSANE, PHILADELPHIA.**

Owen Copp, M. D., Superintendent.

Samuel T. Orton, M. D., Clinical Director and Pathologist.

Earl D. Bond, M. D., Senior Assistant Physician.

Daniel H. Fuller, M. D., Assistant Physician.

George T. Faris, M. D., Assistant Physician.

Edward A. Strecker, M. D., Assistant Physician.

**PENNSYLVANIA—Continued.**

PHILADELPHIA HOSPITAL FOR INSANE, PHILADELPHIA.

J. Allen Jackson, M. D., Chief Resident Physician.

PITTSBURGH CITY HOSPITAL, BOYCE.

C. R. McKinniss, M. D., Superintendent.

H. G. Clark, M. D., Assistant Physician.

S. H. Frank, M. D., Assistant Physician.

G. S. Llewellyn, M. D., Assistant Physician.

STATE ASYLUM FOR THE CHRONIC INSANE, WERNERSVILLE.

S. S. Hill, M. D., Superintendent.

STATE HOSPITAL FOR THE INSANE, DANVILLE.

Hugh B. Meredith, M. D., Superintendent.

James S. Hammers, M. D., Assistant Physician.

E. B. Shellenberger, M. D., Assistant Physician.

STATE HOSPITAL FOR THE INSANE, NORRISTOWN.

Arthur K. Petery, M. D., First Assistant Physician.

Robt. A. Stewart, M. D., Second Assistant Physician.

H. C. Podafi, M. D., Assistant Physician.

Jessie M. Peterson, M. D., Resident Physician, Department for Women.

STATE HOMEOPATHIC HOSPITAL, ALLENTOWN.

Henry I. Klopp, M. D., Superintendent.

Harry F. Hoffman, M. D., Assistant Superintendent.

Walter E. Lang, M. D., Senior Assistant Physician.

C. B. Reitz, M. D., Pathologist.

STATE HOSPITAL FOR CRIMINAL INSANE, FAIRVIEW (WAYMART P. O.).

No members.

STATE HOSPITAL FOR THE INSANE, WARREN.

H. W. Mitchell, M. D., Superintendent.

Paul G. Weston, M. D., Pathologist.

Alan D. Finlayson, M. D., Assistant Physician.

Ira A. Darling, M. D., Assistant Physician.

STATE INSTITUTION FOR FEEBLE-MINDED, POLK.

J. Morehead Murdock, M. D., Superintendent.

STATE INSTITUTION FOR FEEBLE-MINDED, SPRING CITY.

George P. Ard, M. D., Assistant Physician.

STATE LUNATIC HOSPITAL, HARRISBURG.

H. L. Orth, M. D., Superintendent.

R. F. L. Ridgway, M. D., First Assistant Physician.

STONYHURST SANITARIUM, HOLMESBURG, PHILADELPHIA.

No members.

"THE EYRIE," CLIFTON HEIGHTS.

W. W. Hawke, M. D.

**PENNSYLVANIA**—*Continued.*

THE MERCER SANITARIUM, MERCER.

Wm. W. Richardson, M. D., Physician-in-Charge.

WOOD LEA SANITARIUM, ARDMORE.

Grace E. White, M. D.

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Jane Rogers Baker, M. D., West Chester.

Charles W. Burr, M. D., Philadelphia.

Alfred Gordon, M. D., Philadelphia.

Seymour De Witt Ludlum, M. D., Merion.

D. J. McCarthy, M. D., Philadelphia.

Clyde R. McKinniss, M. D., Boyce Station.

Edward E. Mayer, M. D., Pittsburgh.

Charles K. Mills, M. D., Philadelphia.

Alfred Ostheimer, M. D., Philadelphia.

John H. W. Rhein, M. D., Philadelphia.

T. H. Weisenburg, M. D., Philadelphia.

Cornelius C. Wholey, M. D., Pittsburgh.

Mary M. Wolfe, M. D., Lewisburg.

Frank Woodbury, M. D., Philadelphia.

W. E. Wright, M. D., Harrisburg.

**R****RHODE ISLAND**—BUTLER HOSPITAL, PROVIDENCE.

G. Alder Blumer, M. D., Medical Superintendent.

Henry C. Hall, M. D., Assistant Superintendent.

Arthur H. Ruggles, M. D., Assistant Physician.

RHODE ISLAND SCHOOL FOR FEEBLE-MINDED, SLOCUM.

No members.

RHODE ISLAND STATE SANATORIUM, WALLUM LAKE.

No members.

STATE HOSPITAL FOR INSANE, HOWARD.

Arthur H. Harrington, M. D., Superintendent.

E. H. Cohoon, M. D., Assistant Physician.

Joseph H. Toomey, M. D., Assistant Physician.

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William McDonald, M. D., Providence.

Peter L. Keough, M. D., Providence.

**S****SOUTH CAROLINA**—STATE HOSPITAL FOR THE INSANE, COLUMBIA.

Wm. C. Sandy, M. D., Medical Director.

J. L. Thompson, M. D., Assistant Physician.

WAVERLEY SANITARIUM, COLUMBIA.

J. W. Babcock, M. D., Superintendent.

Eleanora B. Saunders, M. D.

**SOUTH DAKOTA**—ASYLUM FOR INSANE INDIANS, CANTON.**Henry R. Hummer, M. D.,** Superintendent.

SOUTH DAKOTA HOSPITAL FOR THE INSANE, YANKTON.

**L. C. Mead, M. D.,** Superintendent.**George Sheldon Adams, M. D.,** Assistant Superintendent.

STATE SCHOOL AND HOME FOR FEEBLE-MINDED, REDFIELD.

No members.

**T****TENNESSEE**—CENTRAL HOSPITAL FOR THE INSANE, NASHVILLE.**Albert E. Douglas, M. D.,** Superintendent.**Howard M. Francisco,** Assistant Physician and Pathologist.

EASTERN HOSPITAL FOR THE INSANE, BEARDEN.

**Michael Campbell, M. D.,** Superintendent.

WESTERN HOSPITAL FOR THE INSANE, BOLIVAR.

**James J. Neely, M. D.,** Superintendent.

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**Wm. G. Somerville, M. D.,** Memphis.**TEXAS**—ARLINGTON HEIGHTS SANITARIUM, FORT WORTH.**W. F. Allison, M. D.,** Superintendent.

DR. MOODY'S SANITARIUM, SAN ANTONIO.

**G. H. Moody, M. D.,** Superintendent.

NORTH TEXAS HOSPITAL FOR THE INSANE, TERRELL.

No members.

SOUTHWESTERN INSANE ASYLUM, SAN ANTONIO.

**F. S. White, M. D.,** Superintendent.

STATE EPILEPTIC COLONY, ABILENE.

**T. B. Bass, M. D.,** Superintendent.

STATE LUNATIC ASYLUM, AUSTIN.

**John Preston, M. D.,** Superintendent.

TEXAS SCHOOL FOR DEFECTIVES, AUSTIN.

**A. Fitzhugh Beverly, M. D.,** Resident Physician

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**John S. Turner, M. D.,** Dallas.**U****UTAH**—UTAH STATE MENTAL HOSPITAL, PROVO CITY.**Daniel H. Calder, M. D.,** Superintendent.**V****VERMONT**—BRATTLEBORO RETREAT, BRATTLEBORO.**Shailer E. Lawton, M. D.,** Superintendent.**Herbert W. Taylor, M. D.,** First Assistant Physician.

STATE HOSPITAL FOR THE INSANE, WATERBURY.

No members.

**VIRGINIA—CENTRAL STATE HOSPITAL, PETERSBURG.****William F. Drewry, M. D., Superintendent.****Hugh Carter Henry, M. D., First Assistant Physician.****EASTERN STATE HOSPITAL, WILLIAMSBURG.****G. W. Brown, M. D., Superintendent.****G. G. Hawkins, M. D., First Assistant Physician.****Susan A. Price, M. D., Assistant Physician.****SOUTHWESTERN STATE HOSPITAL, MARION.****John C. King, M. D., Superintendent.****Estelle H. Henderson, M. D., First Assistant Physician.****STATE EPILEPTIC COLONY, MADISON HEIGHTS.****A. S. Priddy, M. D., Superintendent.****WEST END SANATORIUM, RICHMOND.****Paul V. Anderson, M. D., Resident Physician.****Jas. K. Hall, M. D., Resident Physician.****WESTERN STATE HOSPITAL, STAUNTON.****J. S. De Jarnette, M. D., Superintendent.****J. H. Garlick, M. D., Assistant Physician.**

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**Oliver C. Brunk, M. D., Richmond.****W****WASHINGTON—EASTERN WASHINGTON HOSPITAL FOR THE INSANE, MEDICAL LAKE.****John M. Semple, M. D., Superintendent.****NORTHERN HOSPITAL FOR INSANE, SEDRO WOOLLEY.**

No members.

**STATE INSTITUTION FOR FEEBLE-MINDED, MEDICAL LAKE.**

No members.

**WESTERN WASHINGTON HOSPITAL FOR THE INSANE, FORT STEILACOOM.**

No members.

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**Robert P. Smith, M. D., Seattle.****WEST VIRGINIA—HUNTINGTON STATE HOSPITAL, HUNTINGTON.****L. V. Guthrie, M. D., Superintendent.****James R. Bloss, M. D., Assistant Physician.****Harry W. Keatley, M. D., Assistant Physician.****Ray M. Babbitt, M. D., Assistant Physician.****SPENCER STATE HOSPITAL, SPENCER.****Charles A. Barlow, M. D., Superintendent.****WEST VIRGINIA HOSPITAL FOR THE INSANE AT WESTON.**

No members.



**WISCONSIN—LAKE GENEVA SANITARIUM, LAKE GENEVA.**

No members.

MILWAUKEE ASYLUM FOR THE CHRONIC INSANE, WAUWATOSA.

William F. Beutler, M. D., Superintendent.

MILWAUKEE HOSPITAL FOR THE INSANE, WAUWATOSA.

M. J. White, M. D., Superintendent.

MILWAUKEE SANITARIUM, WAUWATOSA.

Richard Dewey, M. D., Physician-in-Charge.

Herbert Wm. Powers, M. D.

NORTHERN HOSPITAL FOR THE INSANE, WINNEBAGO.

Adin Sherman, M. D., Superintendent.

OAK LEIGH SANITARIUM, LAKE GENEVA.

Mary E. Pogue, M. D., Physician-in-Charge.

OCONOMAWOC HEALTH RESORT, OCONOMAWOC.

Arthur W. Rogers, M. D., Superintendent.

PALMYRA SANITARIUM, PALMYRA.

No members.

THE SANATORIUM, HUDSON.

W. H. Darling, M. D., Superintendent.

WAUKESHA SPRINGS SANITARIUM, WAUKESHA.

Byron M. Caples, M. D., Superintendent.

WISCONSIN HOME FOR FEEBLE-MINDED, CHIPPEWA FALLS.

No members.

WISCONSIN STATE HOSPITAL FOR CRIMINAL INSANE, WAUPUN.

No members.

WISCONSIN STATE HOSPITAL FOR THE INSANE, MENDOTA.

William F. Lorenz, M. D., First Assistant Physician.

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William F. Becker, M. D., Milwaukee.

Anne Burnet, M. D., Wausau.

John B. Edwards, M. D., Milwaukee.

Roy E. Mitchell, M. D., Eau Claire.

Charles Gorst, M. D., Mendota.

S. S. Stack, M. D., Milwaukee.

J. F. Wen Glesky, M. D., Milwaukee.

**WYOMING—STATE HOSPITAL FOR THE INSANE, EVANSTON.**

Charles H. Solier, M. D., Superintendent.

**BRITISH AMERICA.**

BRITISH COLUMBIA—PUBLIC HOSPITAL FOR INSANE, NEW WESTMINSTER.

Charles Edward Doherty, M. D., Superintendent.

James G. McKay, M. D., Assistant Physician.

**MANITOBA—ASYLUM FOR THE INSANE, SELKIRK.**

H. C. Norquay, M. D., Assistant Superintendent.

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David Young, M. D., Winnipeg.

**NEW BRUNSWICK—THE PROVINCIAL HOSPITAL, ST. JOHN.**

James V. Anglin, M. D., Superintendent.

**NEWFOUNDLAND—ASYLUM FOR THE INSANE, ST. JOHN'S.**

No members.

**NOVA SCOTIA—NOVA SCOTIA HOSPITAL, HALIFAX.**

Frederick E. Lawlor, M. D., Superintendent.

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W. H. Hattie, M. D., Halifax.

**ONTARIO—ASYLUM FOR THE INSANE, COBOURG.**

No members.

**ASYLUM FOR THE INSANE, LONDON.**

W. J. Robinson, M. D., Superintendent.

**ASYLUM FOR THE INSANE, PENETANGUISHENE.**

William T. Wilson, M. D., Superintendent.

**HOMEWOOD SANITARIUM, GUELPH.**

Alfred T. Hobbs, M. D., Superintendent.

E. C. Barnes, M. D., Assistant Physician.

**HOSPITAL FOR THE INSANE, BROCKVILLE.**

John C. Mitchell, M. D., Superintendent.

**HOSPITAL FOR THE INSANE, HAMILTON.**

W. M. English, M. D., Superintendent.

Peter MacNaughton, M. D., Assistant Superintendent.

**HOSPITAL FOR THE INSANE, TORONTO.**

James M. Forster, M. D., Superintendent.

**MIMICO HOSPITAL FOR THE INSANE, TORONTO.**

Nelson H. Beemer, M. D., Superintendent.

**DR. MEYERS' HOSPITAL, TORONTO.**

Donald Campbell Meyers, M. D., Superintendent.

**ROCKWOOD HOSPITAL FOR THE INSANE, KINGSTON.**

Edward Ryan, M. D., Superintendent.

Ernest H. Young, M. D., Assistant Superintendent.

**SIMCOE HALL, BARRIE.**

W. C. Barber, M. D., Superintendent.

**TORONTO GENERAL HOSPITAL, TORONTO.**

Charles K. Clarke, M. D., Medical Superintendent.

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R. W. Bruce Smith, M. D., Toronto.

Jno. G. Fitzgerald, M. D., Toronto.

**PRINCE EDWARD ISLAND**—FALCONWOOD HOSPITAL FOR INSANE, CHAR-  
LOTTETOWN.

V. L. Goodwill, M. D., Superintendent.

**QUEBEC**—BEAUFORT ASYLUM FOR THE INSANE, BEAUFORT, QUEBEC.  
M. D. Brochu, M. D., Superintendent.

PROTESTANT HOSPITAL FOR THE INSANE, MONTREAL.

T. J. W. Burgess, M. D., Superintendent.

Carlyle A. Porteous, M. D., Assistant Superintendent.

Andrew Macphail, M. D., Consulting Pathologist.

David Alexander Shirres, M. D., Consulting Neurologist.

Hedley V. Robinson, M. D., Assistant Physician.

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E. Philippe Chagnon, M. D., Montreal.

Haig A. Sims, M. D., Montreal.

SAINT JEAN DE DIEU HOSPITAL, MONTREAL.

George Villeneuve, M. D., Superintendent.

Francis E. Devlin, M. D., Assistant Superintendent.

**CUBA**.—MALBERTI'S SANITARIUM, HAVANA.

José A. Malberti, M. D., Physician-in-Charge.

**PORTO RICO**.—INSANE ASYLUM, SAN JUAN.

No members.

# AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

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## CONSTITUTION.

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### ARTICLE I.

This organization shall be known as the AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION, this name being adopted in 1892 by "The Association of Medical Superintendents of American Institutions for the Insane," founded in 1844.

### ARTICLE II.

The object of this Association shall be the study of all subjects pertaining to mental disease, including the care, treatment, and promotion of the best interests of the insane.

### ARTICLE III.

There shall be five classes of members: (1) Active members, who shall be physicians, resident in the United States and British America, especially interested in the treatment of insanity; (2) Associate members; (3) Life members; (4) Honorary members; and (5) Corresponding members.

### ARTICLE IV.

The officers of the Association shall consist of a President, Vice-President, Secretary—who shall also be the Treasurer—three Auditors, and twelve other members of the Association to be called Councilors; all of these officers together shall constitute a body which shall be known as the Council.

NOTE.—The Association of Medical Superintendents of American Institutions for the Insane was founded in 1844 by the original thirteen members. In 1891, when its membership had increased to more than two hundred, it was proposed, at the annual meeting of that year in Washington, to form a better organization of the Association—its work having previously been done under the somewhat unstable rules of custom and a few resolutions scattered through its records. The proposition was agreed to, and at the annual meeting in Washington, in 1892, there were unanimously adopted the following Constitution and By-Laws, with the change of name to the AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

## ARTICLE V.

The Active members of the Association shall include all past and present medical superintendents named in the official list published for 1892 of members of "The Association of Medical Superintendents of American Institutions for the Insane"; the Life members shall be such Active members as shall have been members of the Association for a consecutive period of thirty (30) years; the Honorary members shall include those so designated in that list; the Associate members shall include all the assistant physicians named in the same list; it being provided that said list shall be corrected by the Council, as may be necessary to carry out the intention of the Constitution as to the continuance of existing membership.

Every candidate for admission to the Association hereafter as an Active member shall be proposed to the Council, in writing, in an application addressed to the President, at any annual meeting preceding the one at which the election is held. Honorary, Associate, or Corresponding members shall be proposed to the Council, in writing, in an application addressed to the President, at least two months prior to the meeting of the Association. Every application of whatever class must include a statement of the candidate's name and residence, professional qualifications, and any appointments then or formerly held, and certifying that he is a fit and proper person for membership. In the case of a candidate for Active or Associate membership, the application shall be signed by three Active members of the Association; and by six Active members for the proposal of an Honorary or Corresponding member. The names of all candidates approved by a majority vote of members of the Council present at its annual meeting shall be presented on a written or printed ballot to the Association at its concurrent annual meeting, at least one session previous to that at which the election is made, which shall be by ballot at a regular session, and require a majority vote of the members present. Physicians who, by their professional work or published writings, have shown a special interest in the care and welfare of the insane, are eligible to Active membership. The only persons eligible for Associate membership are regularly appointed assistant physicians of institutions for the insane that



are regarded to be properly such by the Council; and they are eligible for such membership only during the time they are holding such appointments. After holding such an appointment three years, an Associate member may become an Active member by making application, in writing, to the Council, and upon its approval, being elected in the manner heretofore prescribed.

#### ARTICLE VI.

Physicians and others who have distinguished themselves by their attainments in branches of science connected with insanity, or who have rendered signal service in philanthropic efforts to promote the interests of the insane, shall be eligible for Honorary membership.

Physicians not residents in the United States and British America, who are actively engaged in the treatment of insanity, may be elected Corresponding members.

Active members only shall be entitled to a vote at any meeting, or be eligible to any office. Life, Honorary and Corresponding members shall be exempt from all payments of annual dues to the Association.

#### ARTICLE VII.

Any member of the Association may withdraw from it on signifying his desire to do so in writing to the Secretary: *Provided*, That he shall have paid all his dues to the Association. Any member who shall fail for three successive years to pay his dues after special notice by the Treasurer shall be regarded as having resigned his membership, unless such dues shall have been remitted by the Council for good and sufficient reasons.

Any member who shall be declared unfit for membership by a two-thirds vote of the members of the Council present at an annual meeting of that body shall have his name presented by it for the action of the Association from which he shall be dismissed if it be so voted by two-thirds of the members present at its annual meeting.

#### ARTICLE VIII.

The Officers and Councilors shall be elected at each annual meeting. They shall be nominated to the Association on the

second day of the annual meeting in the order of business of the first session of that day, by a committee appointed for that purpose by the President; and the election shall take place immediately. The election shall be made as the meeting may determine, and the person who shall have received the highest number of votes shall be declared elected to the office for which he has been nominated.

The President, Vice-President, the Secretary and Treasurer, and Auditors shall hold office for one year or until the beginning of the term for which their successors are elected. One Auditor shall be elected for one year, one for two years, and one for three years. The Secretary and Treasurer and one Auditor are eligible for re-election. At the first election of Councilors, four members shall be elected for one year, four for two years, and four for three years; and thereafter four members shall be elected each year to hold office three years, or until their successors are elected. The President, Vice-President, one Auditor, and the four retiring Councilors are ineligible for re-election to their respective offices for one year immediately following their retirement. All the Officers and Councilors shall enter upon their duties immediately after their election, excepting the President and Vice-President. When any vacancies occur in any of the offices of the Association, they shall be filled by the Council until the next annual meeting.

A quorum of the Council shall be formed by six members; and of the Association by twenty Active members.

#### ARTICLE IX.

The President and Vice-President for the year shall enter on their duties at the close of the business of the annual meeting at which they are elected. The President shall prepare an inaugural address to be delivered at the opening session of the meeting. He shall preside at all the annual or special meetings of the Association or Council, or in his absence at any time, the Vice-President shall act in his place.

The Secretary and Treasurer shall keep the records of the Association and perform all the duties usually pertaining to that office, and such other duties as may be prescribed for him by the Council; and under the same authority he shall receive and dis-

burse and duly account for all sums of money belonging to the Association. He shall keep accurate accounts and vouchers of all his receipts and payments on behalf of the Association, and of all invested funds, with the income and disposition thereof, that may be placed in his keeping, and shall submit these accounts, with a financial report for the preceding year, to the Council at its annual meeting. Each annual statement shall be examined by the Auditors, who shall prepare and present at each annual meeting of the Association a report showing its financial condition. The Council shall have charge of any funds in the possession of the Association, and which shall be invested under its direction and control. The Council shall keep a careful record of its proceedings, and make an annual report to the Association of matters of general interest. The Council shall also print annually the proceedings of the meetings of the Association and the reports of the Treasurer and Auditors.

The Council is empowered to manage all the affairs of the Association, subject to the Constitution and By-Laws; to appoint committees from the membership of the Association, and spend money out of its surplus funds for special scientific investigations in matters pertaining to the objects of the Association, to publish reports of such scientific investigations; to apply the income of special funds, at its discretion, to the purposes for which they were intended. The Council may also engage in the regular publication of reports, papers, transactions, and other matters, in annual volume, or in a journal, in such manner and at such times as the Council may determine, with the approval of the Association.

#### ARTICLE X.

Amendments to the Constitution and By-Laws shall be taken up for consideration at the first session of the second day of any annual meeting, and may be made by a two-thirds vote of all the members present: *Provided*, That notice of such proposed amendments be given in writing at the annual meeting next preceding. It shall be the duty of the Secretary to send to all the members a copy of any proposed amendment at least three months previous to the meeting when the action is to be taken.

## BY-LAWS.

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### ARTICLE I.

The meetings of the Association shall be held annually. The time and place of each meeting shall be named by the Council, and reported to the Association for its action at the preceding meeting. Each annual meeting shall be called by printed announcements sent to each member at least three months previous to the meeting.

The Council shall hold an annual meeting concurrent with the annual meeting of the Association; and the Council shall hold as many sessions and at such times as the business of the Association may require.

Special meetings of the Council may be called by the order of the Council. The President shall have authority at any time, at his own discretion, to instruct the Secretary to call a special meeting of the Council; and he shall be required to do so upon a request signed by six members of the Council. Such special meetings shall be called by giving at least four weeks' written notice.

### ARTICLE II.

Each and every Active and Associate member shall pay an annual tax to the Treasurer, the amount to be fixed annually by the Council, not to exceed five dollars for an Active member, or two dollars for an Associate member.

### ARTICLE III.

The order of business of each annual meeting of the Association shall be determined by the Council, and shall be printed for the use of the Association at its meeting. The Council shall also make all arrangements for the meetings of the Association, appointing such auxiliary committees from its own body, or from other members of the Association, and making such other provisions as shall be requisite, at its discretion.





NOTE.

The accompanying volume, containing the proceedings, papers, and discussions of the American Medico-Psychological Association at its Seventy-first Annual Meeting, is printed by the Council with the approval of the Association.

HENRY C. EYMAN,  
*Secretary.*

MASSILLON, OHIO,  
*March 1, 1916.*

# AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

PROCEEDINGS OF THE SEVENTY-FIRST ANNUAL MEETING.

FORTRESS MONROE, VA., TUESDAY, MAY 11, 1915.

FIRST SESSION.

The Association convened at 10 a. m. in the Convention Hall of the Hotel Chamberlin, Fortress Monroe, Va., and was called to order by the President, Dr. Samuel E. Smith, of Richmond, Ind.

THE PRESIDENT.—The Association will please come to order. I have the honor to declare the Seventy-first Annual Meeting of the American Medico-Psychological Association now in session.

We will hear the invocation by the Rev. A. A. Pruden, chaplain at Fortress Monroe, Va.

Major Pruden then offered the invocation.

THE PRESIDENT.—Governor Stuart, of Virginia, is unavoidably absent this morning, but we have a representative of this great commonwealth of Virginia, who will say a few words of welcome. This gentleman is well known throughout the State of Virginia and the surrounding country; he has taken a prominent and active part particularly in the uplift of mankind and has given some attention to the cause we are interested in—the treatment of insanity. I have great pleasure in presenting to you Hon. Harry R. Houston, of Hampton, Va.

MR. HOUSTON.—*Mr. President, Members of the American Medico-Psychological Association, Ladies and Gentlemen:* I wish to preface my few remarks by extending to you, on the part of the State of Virginia, the “glad hand,” or rather, express to you that well-known phrase, “Welcome to our city.” I would also preface this address by thanking the chairman and members of your Committee on Arrangements for the kind partiality they have shown in the honor of asking me to deliver a welcome from the Old Dominion, and particularly from this section of the Old Dominion, Tidewater Virginia.

You will observe on your program, and gather from what has been said by your President, that I was really intended as “second in command”

on this occasion. When I accepted the invitation, I thought I would be like what is described of the Western country where the air currents are a little treacherous. Out there when there is to be a balloon ascension they send up small balloons first, in order that they may test the air currents before the main ascension. This I presumed would be my province this morning—simply as an atmospheric tester for Governor Stuart; but, as has been explained to you, he was unavoidably detained, and so we will have to look upon it as did the old colored man when the lightning struck his barn—he said, “God moves in a ‘mischievous’ way his blunders to perform.”

It is quite an honor to stand here, even if second in command, and give you the message which the Governor of our state was invited to deliver, but it is a still greater honor and pleasure to address such a prominent and intelligent body of men as compose this Association assembled here to take counsel in a work which our commonwealth regards as one of the greatest that is carried on within its borders. It is not a theoretical “uplift,” but one of those problems of dire necessity which confront every commonwealth and which, to a greater or less degree, are carried on by our ablest and best physicians, in many instances at a sacrifice. So I congratulate you upon your mission and tell you that I appreciate being able to speak to you.

Now, again, I deliver to you a welcome from the State of Virginia. The hospitality of Virginia has been noted for centuries, and so there may be little said on that subject. I am indeed sorry, however, that the Governor is not here to tell you of Virginia in all of its phases, because the first work the Governor of Virginia has to perform is to write a speech upon Virginia. He generally prepares this before he prepares his message to the Assembly. These eloquent addresses go over, page by page, the great history of Virginia. Of all the Governors of Virginia that I recall, I believe I like ex-Governor Swanson's speech the best, perhaps because I know it nearly by heart; it was delivered 43 times at the Jamestown Imposition—I mean, Exposition. It is extremely unfortunate, therefore, that we do not have the privilege of hearing one of these masterpieces on Virginia.

We can talk about Virginia at county fairs, etc., without fear of successful contradiction, but when you speak of Virginia as the biggest state in the country, in a gathering like this, there is likely to be some one from the Lone Star State who will get up later on and tell us about Texas; and when you speak of Virginia as the richest state, some one from New York or Pennsylvania is likely to take exception to it. We have the particular distinction of being the mother of states and the mother of statesmen, but some are even trying to take this from us. There is one thing, however, that we can agree upon, and that is the quality, if not the quantity, of the people of Virginia, or rather, the people that compose that great family known as Virginians, wherever they may live. It is difficult to find a man anywhere in the United States who will not tell you that Virginia was his mother's state or his father's state, or that, through

some ancestry, he goes back to old Virginia. As I have traveled about in the North, West and South, I have always found people in every audience who would join in that chorus:

“Carry me back to Old Virginia—

There's where the cotton, corn and sweet potatoes grow;

There's where the birds warble sweetly in the Springtime;

There's where this good old darkey's heart longs to go.”

We might all agree, however, that this is the best section of the State of Virginia, here at Old Point Comfort. (This, incidentally, is where I live.) It was here, about 308 years and 10 days ago, the first Anglo-Saxons landed in this country, and right at this spot where you sit to-day, or perhaps within a stone's throw of it, the first Anglo-Saxons set foot upon American soil, and there planted the first permanent Anglo-Saxon settlement, which has continued from that day until this in the form of a little city by the name of Hampton, formerly the old Indian village of Kecoughtan. Now, Hampton at that time was a very large city. It is a thriving and important center to-day, but in those days, like all Gaul, it was divided in three parts. There was Hampton, North Hampton and South Hampton. South Hampton extended from Cape Henry to St. Augustine, Fla., and North Hampton extended from Cape Charles to the North Pole!

As we gather here our minds naturally turn, therefore, to that scene when our forefathers set foot on this soil and were extended so cordial a welcome by the Indians who inhabited this shore. And this is the welcome I would give to you to-day, as you come from all the states to one of the original shires on the shores of Tidewater Virginia, at Old Point Comfort.

I would not take up your time by telling you of all the things that have occurred here, because the history of Hampton is almost the history of Virginia, and the history of Virginia is almost the history of the United States. We do not live in the past, anyway. We are actively engaged in the affairs of the day, looking forward with confidence to the future. You will find about Hampton many places of interest and many thriving industrial communities.

Now, my friends, to this beautiful country I extend you a most cordial welcome. I sincerely trust that as you go away you will take with you what most surely you will leave behind—pleasant recollections of a delightful stay and a longing to return again. [Applause.]

THE PRESIDENT.—We have another gentleman with us this morning, Mr. Robert Gilliam, a member of the Board of Directors of the Central State Hospital, at Petersburg, Va.; if he will come forward we will be pleased to hear his word of welcome. I should say, before Mr. Gilliam begins his remarks, by way of introduction, that he has been for some thirty years a member of the Board of Directors of the hospitals for the insane of Virginia, the longest record, I think, which has ever been made in the commonwealth. He has manifested an active interest in the cause of the unfortunates of the State of Virginia, and we are much pleased to receive him here this morning.

MR. GILLIAM.—*Mr. President, and Gentlemen of the American Medico-Psychological Association:* I regret very much that I was unable to be here at the opening of your session; I regret that I had the misfortune of not hearing Mr. Houston's remarks. Possibly what I may have to say to you will sound like a "twice told tale." However, gentlemen, I will have to do the best I can under the circumstances.

Your President has said that I have been connected with the hospitals of Virginia for about 30 years. I have been for more than 27 years a director of the Central State Hospital of Virginia, at Petersburg.

Alone to my 27 years of service as a member of the Board of Directors of the Central Hospital of Virginia can I attribute the honor conferred upon me to extend to you to-day the greeting and welcome of the Commissioner and General Board of Directors of the State Hospitals of Virginia; a welcome to that section of Virginia where the first permanent settlement of English-speaking people was planted; a welcome to the "Cradle of the Republic."

On the 26th of April, 308 years ago, English colonists to the number of 105, in three little ships, *Discovery*, *God Speed* and *Susan Constant*, of the total burden of 160 tons, and under the command of Captain Christopher Newport, after a long and tempestuous voyage, sailed into "The Mother of Waters"—the Chesapeake Bay, through the Virginia Capes; to the northern of which they gave the name of Charles, and the southern Henry, after the sons of King James the First.

Among these colonists were Bartholomew Gosnold, the promoter and mainspring of the expedition; that famous chevalier, John Smith, who was to become the "soul of the enterprise" and the "founder of Virginia"; Rev. Robert Hunt, a devout clergyman, who was to plant the church in the Old Dominion, and with them many other worthies.

On coming into the bay they first landed near Cape Henry, where they were saluted by the Indians with a shower of arrows; to which they responded with a volley from their "fusees," and retired to their boats. Sailing along the southern shores of the bay, they again landed, for a little while, near Sewell's Point, the site of the Jamestown Exposition, just opposite to us. Then they discovered "Point Comfort," where you now sit, and floating into the cove just southwest of us, were met by five of the natives, who invited them to their town—Kickotan, now the site of Hampton, which you visit to-morrow. Here they were feasted with cakes made of Indian corn and, as an old author says, "regaled with tobacco and a dance." From Kickotan their little barks were wafted by the gentle breezes of a southern Spring up that beautiful river—Powhatan, to which was given the name of James, in honor of the King.

About 30 miles up this lovely stream, on the 13th day of May, Anno Domini 1607, in the reign of His Majesty James I, a landing was made on what was then a peninsula—now an island. This they named Jamestown, and here the first settlement took place and the seat of government was established, and here it remained till 1698.



About seven miles inland from this point, at Williamsburg, the new capital, in November, 1769, by an act passed by the "Governor, Council and Burgesses of the General Assembly of Virginia," was founded and established the first public hospital in America "for the support and maintenance of idiots, lunatics, and other persons of unsound mind." The corporation was styled: "The Court of Directors of the Public Hospital for Persons of Insane and Disordered Minds." Twelve hundred pounds were appropriated for buildings, and £25 per annum for the support of each patient.

There were in 1845, says an old historian, "always above an hundred inmates of this hospital." At that time a distinguished alienist, Dr. J. M. Galt, was superintendent.

In 1825 an act was passed establishing another hospital, which is located at Staunton. Of this Dr. Francis T. Stribling was superintendent.

By an act of November 5, 1870, the Central State Hospital for the care of the colored insane was created. This was located temporarily at Richmond—is now at Petersburg. Later the Southwestern, of which the lamented Dr. R. J. Preston, a former President of this Association, was, at the time of his death, superintendent.

In 1910 the State Epileptic Colony, of which Dr. A. S. Priddy is superintendent, was established at Lynchburg. This colony and our hospitals at Williamsburg, Staunton, Marion and Petersburg are doing fine service. The superintendents are experienced men and well trained in their line of work.

There are about 5000 patients in our hospitals. Although some are crowded, all the certified cases of insanity, white and colored, are promptly taken into one or the other of the five hospitals, none being allowed to linger in jail. Many years ago mechanical restraint of all kinds was abolished. Diversional occupation holds a prominent place in the treatment of our patients. Separate provision has been made for the criminal insane, and at each institution the tubercular cases are treated in separate buildings.

Our commitment laws insure voluntary and emergency commitment, and all proceedings regarding commitment are simple.

The medical staffs of the institutions have an organization, meeting twice a year, for the purpose of keeping abreast of the times in those matters in which they are especially interested, and a movement has been inaugurated to organize a State Society for Mental Hygiene.

Steps have been taken looking to the publication of a quarterly, the chief aims of which will be to disseminate proper knowledge regarding prevention of insanity, feeble-mindedness, etc., and to urge early treatment, proper fore-care, after-care, etc.

Under the control of a General Board of Directors, a Commissioner, and Special Boards of Directors, the institutions are conducted economically and in a business-like, uniform and efficient manner. A number of these directors, all the superintendents, and some of the assistant physicians,

are *here*, to learn more about insanity and hospital management and to welcome those who have come from other institutions.

Our hospitals are not magnificent structures, nor are they splendidly equipped, but they give kindly care and good treatment to *all* Virginia citizens who seek their shelter, and without cost to them. The past 20 years has witnessed a new awakening in the care of the insane; during that time great advances have been made.

Mr. President, this Association is the oldest national medical society in the country. Since its organization, in 1844, it has been the chief means of spreading, through its members, knowledge regarding the best methods of care and treatment of the insane. This society of nearly 1000 alienists, representing every part of Canada and the United States, has always stood for progress in scientific psychiatry, and in the humane care of the insane, state care, etc. A Virginia superintendent, Dr. Francis T. Stribling, was one of the trio, Dr. Woodward, of Massachusetts, and Dr. Aul, of Ohio, being the others, who were instrumental in bringing about the organization of the society, and the before mentioned Dr. J. M. Galt, another distinguished Virginia superintendent, was one of the original 13 charter members. Two other Virginia superintendents, Dr. R. J. Preston and Dr. W. F. Drewry, have been Presidents of the Association, and the forebears of several of your most eminent members were Virginians. This is true of the present President (Dr. S. E. Smith).

The presence here of distinguished representatives from other states who are engaged in the care and treatment of the insane and the management of institutions, public and private, means much to our people, especially to us who are connected with our state institutions.

What is said and done at this convention will reach the people's ear and further enlighten and encourage us to go forward to better things than ever for our insane, epileptics, and mentally subnormals.

Mr. President and gentlemen of the Association, you are cordially invited to visit, during your stay in Virginia, all of our state hospitals. At all of them you will receive the same hearty welcome that is extended you here to-day.

May your visit be an inspiration to us to go forward with the good work committed to our charge, and, if I may be permitted to paraphrase an old verse,

Long may you live in health and peace,  
And every hour your joys increase.  
To this let every swain and lass  
Take sparkling, brimming, flowing glass,  
Then join the sprightly dance, and sing  
Welcome our guests and the joy they bring.

I thank you very much, gentlemen, for your attention. [Applause.]

THE PRESIDENT.—The Association thanks the distinguished gentlemen for their words of cordial welcome to the Old Dominion State. That we have a pleasing memory of its hospitality is evidenced by the fact that we

come for the fourth time to this great Commonwealth of Virginia, and for the second time to this historic spot of Old Point Comfort, to find a congenial meeting place. While we are here primarily for some earnest work, we are not averse to a little play, because we have been told recently by a distinguished confrere that, among other things, men live by work and play. You are, therefore, at liberty to proceed with your hospitable entertainment, and I assure you that the members of the Association will receive it warmly or coldly, as you may present it, with open minds and—mouths. And if, perchance, there should be any conflict of the two programs I shall deem it my bounden duty to appoint the Vice-President and a committee of three to look after the work while the remainder of us shall constitute a committee on *reception of entertainment*.

We are indeed happy to come to Virginia, which has made so much history, important in the annals of American government and development, and whose romance and chivalry, so beautiful and unique, have enthralled the entire English-speaking world. Some of us are here by native right and proud indeed of the Virginia blood that courses in our veins, and none of us, I am sure, feels himself a stranger in the warmth of your cordial welcome.

We come from nearly every state in the union and most of the provinces of the Canadian Dominion, with greetings of good will, and respectfully and reverently do homage to the memory of your departed men and women who, by their statecraft, courage and sacrifices made this republic possible. We come, too, with congratulations to you for preserving and maintaining so well the ideals of the fathers, for the industrial development and spirit of progress we see everywhere about us, and last, but not least, for the deep and active interest you are manifesting in the uplift of mankind as is shown by the high standard of your public charitable institutions. We are indeed happy to be here and to hold this meeting almost in the shadow of the first state hospital for the insane constructed in America; only a few miles distant is the old institution at Williamsburg, which we have been very cordially invited to visit. We are assured that our brief sojourn with you will be helpful and profitable to us, and we trust that we may so conduct ourselves in the enjoyment of the freedom and privileges you so graciously extend to us that we may be permitted to come at another time. The story is told in my own city of a son of Erin and a mechanic, who, in spite of repeated admonitions, continued to lower his efficiency by his convivial habits. The superintendent of the plant found Patrick unfit for work one morning, relieved him from duty, and later sent him a letter discharging him, and enclosing his pay-check. Pat disappeared, but at the end of five days he returned to the shop and took his place at his old machine. The superintendent soon observed him with surprise and accosted Pat by asking him why he was there. Pat said, "To work." "But," said the superintendent, "didn't you receive my letter?" "Sure," said Pat, "I received your letter." "But didn't I discharge you?" said the superintendent. "Sure," said Pat, "you did discharge me." "Well, then, why are you here?" "It is this way," said Pat; "in the letter you discharged

me all right, but printed on the corner of the envelope were the words, 'Return in five days,' and so I am here."

I hope your cordial greeting has a return superscription upon it. Again I thank you. [Applause.]

THE PRESIDENT.—The first in order will be the report of the Committee of Arrangements, Dr. Drewry, chairman.

#### REPORT OF THE COMMITTEE OF ARRANGEMENTS.

*Mr. President, Ladies and Gentlemen:* Your Committee of Arrangements unites with Mr. Gilliam, the representative of our state hospitals, and Mr. Houston, a Virginia statesman of repute, in giving you a cordial greeting. We regret that Governor Stuart was unable to be here to also extend you a welcome to this old commonwealth.

The original Committee of Arrangements, appointed by you, Mr. President, composed of the superintendents of our state hospitals, Drs. DeJarnette, Priddy, King, Brown, and the speaker, was, thanks to the State Board of Hospital Directors, enlarged by the addition of a sub-committee of their members, viz.: Messrs. Whitehead, Bohannon, West, Landes, Morgan, and Commissioner Bauserman; and Mr. Stearns, of the State Board of Charities, was also added to this committee. These, with others connected with our institutions, constitute a general reception committee to give a good time to our visiting friends.

We are pleased in having Dr. Douglas S. Freeman, a distinguished layman who is closely identified with the movement for the general uplift, to make the annual address to-morrow evening.

With the approval and co-operation of your Program Committee, we have provided for some social entertainment that will, we trust, divert your minds for the time being from the weighty scientific papers and discussions, and give you a few carefree moments.

By courtesy of the commanding officer of Fortress Monroe, we have been invited this afternoon to visit the coast batteries and afterwards witness a regimental parade on the splendid parade grounds. Cars conveying us to the batteries will leave at 4 o'clock, a point a few hundred yards from the hotel.

To-morrow, Wednesday afternoon, the committee has provided for a boat ride on Hampton Roads. The boat *Endeavor* will leave the dock near the hotel at 2.30 o'clock, and return about 6 o'clock. You will see on the trip one of the finest harbors in the world, and get a glimpse of some points of historic interest; such as the Rip Raps, the site of the naval battle between the *Monitor* and the *Merrimac*, the National Soldiers' Home, etc. By courtesy of Mr. Palen, assistant general manager of the Newport News Shipyard, a 30-minute stop will be made to see that great plant.

Wednesday evening, following Dr. Freeman's address, there will be a reception to the orator of the occasion and the President. After the reception we will be the guests of the hotel. There will be dancing.



Thursday, the officers of the Hampton Normal and Agricultural Institute have invited us to their institution and will tender us an entertainment in which the performers will be from the student body. It is worth your while to see this great institution, where several hundred young colored people and some Indians are being trained to useful citizenship. Special cars, leaving from the front entrance of the hotel at 11.30, will convey the members to and from the institute, leaving there about 1.30 p. m., returning to the hotel in time for lunch.

The Virginia and the Borough Clubs and the Business Men's Association in Norfolk have extended to our members and their guests the privileges of their clubs.

Upon registration each member of the Association and each guest, including, of course, the visiting ladies, whom we are especially glad to have with us, will be given cards simply as reminders of the entertainments. Identification badges will also be given to the members of the Association.

The Committee of Arrangements wishes to thank the managers of the Hotel Chamberlin, the officers of Fortress Monroe, and those of the Hampton Institute, for their assistance in connection with the social and other features of this meeting. The committee also takes this occasion to express its appreciation of the cooperation and aid on the part of the officers of the Association, and of the Maryland Psychiatric Quarterly, in the "Old Point" issue.

Respectfully submitted,

W. F. DREWRY, *Chairman.*

THE PRESIDENT.—The Committee of Arrangements has certainly given us a very full program, and it may be necessary to appoint the committee referred to a moment ago.

On motion, the report of the Committee of Arrangements was accepted and adopted.

THE PRESIDENT.—It is now in order to hear the report of the Council, by the Secretary.

REPORT OF THE COUNCIL TO THE AMERICAN MEDICO-PSYCHOLOGICAL  
ASSOCIATION.

FORTRESS MONROE, VA., May 11, 1915.

The Council met on the evening of May 10, 1915, at the Hotel Chamberlin, Fortress Monroe, Va.

The Council has received and transmits herewith the report of the Treasurer for the current year; also a statement of the membership of the Association to date.

The Council recommends for election to active membership the following named physicians. This list was presented to the Association a year ago, and these names are now submitted for final consideration:



Albert Anderson, M.D., Raleigh, N. C.; Paul V. Anderson, M.D., Richmond, Va.; F. A. Carmichael, M.D., Osawatomie, Kans.; J. Henry Clark, M.D., Newark, N. J.; O. H. Cobb, M.D., Syracuse, N. Y.; Guy L. Connor, M.D., Detroit, Mich.; Herbert C. deV. Cornwell, M.D., New York, N. Y.; W. D. Deuschle, M.D., Columbus, O.; H. H. Drysdale, M.D., Cleveland, O.; S. J. Fort, M.D., Baltimore, Md.; Andrew C. Gillis, M.D., Baltimore, Md.; James K. Hall, M.D., Richmond, Va.; Robert Henry Haskell, M.D., Ionia, Mich.; Kenneth B. Jones, M.D., Baltimore, Md.; William A. Jones, M.D., Minneapolis, Minn.; Frank W. Keating, M.D., Owings Mills, Md.; Grover A. Kempf, M.D., New York, N. Y.; Alfred O. Lewis, M.D., Philadelphia, Pa.; Hersey G. Locke, M.D., Syracuse, N. Y.; John T. MacCurdy, M.D., New York, N. Y.; Convas L. Markham, M.D., Amityville, N. Y.; Eugene H. Mullan, M.D., Ellis Island, N. Y.; Michael Osnato, M.D., New York, N. Y.; Charles E. Ross, M.D., Wichita, Kans.; Charles F. Sanborn, M.D., Cincinnati, O.; Carl W. Sawyer, M.D., Marion, O.; Hagt Sims, M.D., Montreal, Que.; L. Gibbons Smart, M.D., Lutherville, Md.; Wesley Taylor, M.D., Detroit, Mich.; Walter C. Van Nuys, M.D., New Castle, Ind.; J. F. Wen Glesky, M.D., Milwaukee, Wis.; Harold W. Wright, M.D., Santa Barbara, Cal.; Ernest H. Young, M.D., Kingston, Ont.

The Council recommends the transfer of the following named associate members to the active class:

G. E. Hatcher, M.D., Cerulean, Ky.; Sylvester R. Leahy, M.D., Brooklyn, N. Y.; Herbert Lee, M.D., St. Joseph, Mo.; James Gordon McKay, M.D., New Westminster, B. C.; James H. Randolph, M.D., Jacksonville, Fla.; A. Warren Stearns, M.D., Boston, Mass.

The Council recommends that the following named physicians be elected to associate membership:

Frank S. Bachelder, M.D., Pontiac, Mich.; Freeman R. Bannon, M.D., Richmond, Ind.; Blinn A. Buell, M.D., Binghamton, N. Y.; H. G. Clarke, M.D., Boyce, Pa.; Wm. Alfred Conlon, M.D., Central Islip, N. Y.; A. S. Cooper, M.D., Jackson, La.; A. Burton Eckerdt, M.D., Warm Springs, Mont.; W. A. Ellison, M.D., Milledgeville, Ga.; Edward H. Ende, M.D., Central Islip, N. Y.; T. W. Evans, M.D., Jackson, La.; Elias Fischbein, M.D., Sonyea, N. Y.; Ralph P. Folsom, M.D., New York, N. Y.; Howard M. Francisco, M.D., Nashville, Tenn.; S. H. Frank, M.D., Boyce, Pa.; Wm. C. Garvin, M.D., New York, N. Y.; Harold I. Gosline, M.D., Hathorne, Mass.; David K. Henderson, M.D., Baltimore, Md.; Charles S. Holbrook, M.D., Jackson, La.; Earl K. Holt, M.D., Logansport, Ind.; Marion E. Kenworthy, M.D., Gardner, Mass.; G. S. Llewellyn, M.D., Boyce, Pa.; James F. McFadden, M.D., Foxborough, Mass.; George A. MacIver, M.D., Worcester, Mass.; B. Henry Mason, M.D., Worcester, Mass.; Harlan P. Mills, M.D., Phoenix, Ariz.; Philip B. Newcomb, M.D., Osawatomie, Kans.; Alton L. Smiley, M.D., Pueblo, Colo.; Edith R. Spaulding, M.D., Sherborn, Mass.; Annie E. Taft, M.D., Boston, Mass.; Melvin J. Taylor, M.D., Poughkeepsie, N. Y.; Charles W. Thompson, M.D., Pueblo, Colo.; E. Mabel Thomson, M.D.,

Sonyea, N. Y.; Douglas A. Thom, M. D., Palmer, Mass.; George Allen Troxell, M. D., Medfield, Mass.; Bernard McHugh Cline, M. D., Milledgeville, Ga.; Fred L. Darrow, M. D., Richmond, Ind.; Mary Wickens, M. D., Richmond, Ind.

The Council has received the following applications for active membership. In accordance with the constitution, final consideration of these will be deferred until next year:

Jau Don Ball, M. D., Oakland, Cal.; George S. Bliss, M. D., Fort Wayne, Ind.; E. A. Farrington, M. D., Haddonfield, N. J.; Lewis M. Gaines, M. D., Atlanta, Ga.; A. P. Goff, M. D., Manila, P. I.; Thomas H. Haines, M. D., Columbus, O.; Charles W. Halterman, M. D., Weston, W. Va.; Ralph L. Hill, M. D., Woodville, Pa.; George E. Hyde, M. D., Blackfoot, Idaho; James W. MacNeill, M. D., Battleford, Sask.; James W. Milligan, M. D., Michigan City, Ind.; Michael J. O'Meara, M. D., Worcester, Mass.; H. Douglas Singer, M. D., Kankakee, Ill.; Jeannette F. Throckmorton, M. D., Charlton, Iowa; C. F. Williams, M. D., Columbia, S. C.; Frankwood E. Williams, M. D., Boston, Mass.; Hansell Crenshaw, M. D., Atlanta, Ga.

The Council has received the resignations of the following members, and recommends that they be accepted in so far as their dues are paid:

Wm. W. Coles, M. D., Keene, N. H.; John J. Harrington, M. D., New York, N. Y.; Wallace W. Knowlton, M. D., Boston, Mass.; Guy G. Fernald, M. D., Concord Junction, Mass.; Thomas Littlewood, M. D., Pittsfield, Mass.; Horace Phillips, M. D., Philadelphia, Pa.; Nelson W. Thompson, M. D., New York, N. Y.; A. W. Thomson, M. D., Poughkeepsie, N. Y.

The Council recommends that the name of Dr. Albert M. Cross, of Evansville, Ind., be dropped from the membership list of the Association, for conduct unbecoming a member.

The Council also recommends that when papers published in the AMERICAN JOURNAL OF INSANITY contain illustrations, tables, etc., the authors be required to pay the excess over ordinary printing, and three-fourths of the cost of the illustrations.

The following is a statement of the membership of the American Medico-Psychological Association to date:

HONORARY MEMBERS.

Former number .....	19
Admitted .....	1
Died .....	2
Present number .....	18

LIFE MEMBERS.

Present number .....	17
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## ACTIVE MEMBERS.

Former number .....	452	
Associate to active .....	13	
Admitted .....	24	
Active to life .....	17	
Resigned .....	11	
Dropped .....	1	
Died .....	6	
Present number .....		454

## ASSOCIATE MEMBERS.

Former number .....	250	
Admitted .....	59	
Associate to active .....	13	
Resigned .....	3	
Dropped .....	1	
Died .....	3	
Present number .....		289

Total membership May 7, 1915..... 778

Respectfully submitted,

CHARLES G. WAGNER, *Secretary*.

THE PRESIDENT.—You have heard the report of the Council, what is your wish in regard to it?

DR HENRY M. HURD.—I move that the report of the Council be accepted and adopted.

Seconded.

DR. WM. A. WHITE.—I have no objection to the adoption of the report, with the exception of that portion which refers to the matter of printing illustrations with articles in the JOURNAL OF INSANITY.

THE PRESIDENT.—Dr. Brush will you explain the matter?

DR. BRUSH.—What is it that it is desired to be explained?

THE PRESIDENT.—The matter of printing illustrations accompanying papers in the JOURNAL OF INSANITY.

DR. BRUSH.—We get papers that are accompanied by long tables which require large expenditure in their reproduction and it seems to me no more than fair that the gentlemen who wish to embellish their articles with illustrations, or who wish to present long tables, should pay for the illustrations a certain proportion of the expense, and for the tables the excess in cost over a page of ordinary composition. It is a matter of no consequence whatever to the editors of the JOURNAL; the JOURNAL is the property of the Association, but the editors are trying to continue the

JOURNAL so as to make it a paying proposition. If we were to publish some of the manuscripts that have been sent to us, the cost for a single article would be more than the cost of the publication of a single number of the JOURNAL. It is obviously up to the Association to say whether it will take money out of the treasury and pay the deficit which is bound to occur, for the publication of the JOURNAL, or ask these gentlemen, who sometimes present illustrations that are very desirable, but who occasionally present illustrations in excess of what is really desirable or necessary to illustrate their article, to bear a portion of the cost. I have in mind an article by a gentleman, not a member of this Association, who felt very much hurt because I wrote him that I should be very glad to publish the illustrations if he would pay for them.

DR. BANCROFT.—I think it is true there may be a tendency on the part of some to present illustrations which are not necessary in connection with the subject with which they deal, and I think it should be the duty and right of the editors of the JOURNAL to discard some of the illustrations just the same as they have the right to discard a whole communication; it is of course a matter of principle. The expense is probably in no case very considerable. It seems to me that the Association could save money in other ways rather than by curtailing the freedom of presenting material in any form which is thought best.

DR. MABON.—I endorse what Dr. Bancroft says. It seems to me it will lessen the value of the JOURNAL OF INSANITY if we take action of this kind. The matter is in the hands of the editors and they should exercise the powers of the Association.

DR. EVANS.—I think the point taken by the last gentleman who spoke is well taken. It would seem that this would put a check upon the publication of some of our most valuable articles. I have no doubt Dr. Brush has gone into this matter very carefully, and that he has established to his own satisfaction the fact that a good many illustrations come in that might fittingly and properly be omitted, but it is highly important that papers which need illustrations should have illustrations and that such articles should be encouraged in our JOURNAL. There is no mention made of a condition such as this: If a writer furnishes inserts whether they would be received and incorporated into the report without any additional cost. I presume Dr. Brush could answer that. A number of the hospitals have their own printing outfits and are equipped to get out any little inserts. It would be a good point to know this. Most of the other journals do that.

DR. BRUSH.—It goes without saying if a man furnishes his own illustrations it will not cost the JOURNAL anything except in binding or printing. As to the majority of our illustrations in the JOURNAL, I doubt if any hospital has the facilities for making them, and the editors would not feel justified in using illustrations which did not come up to the standard the JOURNAL has established. Dr. White is the only editor that furnishes



half-tone illustrations, and I know of practically none that furnish any kind of illustrations unless they are paid for.

DR. HENRY M. HURD.—There are illustrations and illustrations. I would urge against putting an insert in; I should prefer to have the Association go bankrupt than to have that done. The great expense comes with illustrations that require lithographing. The great majority of those who make the colored illustrations become unduly enamored of them.

They think the colors themselves are most remarkable and forget that the colors exhibited are just as artificial as anything else in the staining for the microscope; that the color is not the actual thing as represented. When they see the different colors which seem very artistic they feel as though the tissues looked the same. This artificial coloration is what costs. If the members of the Association would be satisfied to have black and white illustrations there would be less said about the cost, but these illustrations in many colors are very expensive; I have known of such illustrations that cost from \$300 to \$500. When I was editor of the publications of The Johns Hopkins Hospital, I always published the illustrations without expense to the authors, but I generally had a quarrel with them to keep from bankruptcy.

DR. WORK.—It is very evident that these members who have spoken feel that the Chair is in need of enlightenment, and that the purpose of their remarks is solely to enlighten the Chair. We are unable to hear anything that has been said, with one or two exceptions.

DR. BRUSH.—I think it should be said in justice to several members who have published illustrations, that they have freely made the suggestion that they bear a proportion of the cost of preparation of the plates. I have in my hand at present a bill for one number of the JOURNAL, and the illustrations cost exactly one-fourth of what it cost to publish that number of the JOURNAL. The gentleman who furnished that article made no objection to paying one-half the cost.

DR. C. B. BURR.—I move that that portion of the report referring to the publication of illustrations in the JOURNAL be referred to the editors of the JOURNAL, with the expression that it is the sense of the Association that colored illustrations should be paid for by the authors of papers.

Motion seconded.

THE PRESIDENT.—This motion, I presume, will be in the nature of an amendment to the original motion by Dr. Hurd?

DR. HURD.—Yes.

THE PRESIDENT.—I would like to say that it might have been better had the Treasurer's report been presented before this discussion took place. However, that will come later. The Chair feels, also, that the editors of



the JOURNAL should be allowed to exercise certain discretion in matters of this sort, but I do believe that this discussion, following the report of the Treasurer, would have been briefer.

You have heard the amendment, what is your wish?

Carried.

THE PRESIDENT.—What will you do with the original motion by Dr. Hurd, as amended, to adopt the report of the Council?

Carried. The names proposed for election and transfer to come up to-morrow.

THE PRESIDENT.—We will now hear the report of the Treasurer.

REPORT OF TREASURER, 1914-1915.

DEBITS.

Balance on hand June 1, 1914.....	\$3,216.56
Received for dues:	
Active members .....	1,985.00
Associate members .....	525.00
Advance dues .....	13.00
Interest on bank deposits .....	64.88
Gummed lists of members .....	9.00
Copy of Transactions .....	2.00
Refund on express bill (E. S. Graney).....	.25
Subscription to the American Journal of Insanity.....	3.00
Discount .....	.45
Total .....	\$5,819.14

1914

CREDITS.

June 2.	A. P. Herring, Committee on Diversional Occupation (exhibit) .....	\$155.00
	2. Lucas Bros., registry cards.....	4.25
	3. Henry P. Whalen, printing ballots.....	3.00
	5. Charles G. Wagner, telegrams and messenger service at Baltimore meeting .....	5.75
	10. Edward N. Brush, index account.....	50.00
	10. Margaret M. Bloxham, expenses as stenographer at annual meeting 1914 .....	49.56
	22. Edward S. Graney, telegrams and express.....	5.03
July 1.	Henry M. Hurd, History account.....	168.30
	2. O. P. Chase, postage and carfare.....	4.10
	11. The Lord Baltimore Press, Transactions and list of members .....	1,000.00
Aug. 14.	Henry P. Whalen, stamped envelopes and printing....	49.91
28.	Henry P. Whalen, printing bill-books .....	7.50

Sept. 3.	The Lord Baltimore Press, balance on acct.....	\$ 108.01
Oct. 6.	Edward N. Brush, subscription to American Journal of Insanity (Joseph W. Moore) .....	3.00
14.	Henry P. Whalen, printing circulars and envelopes....	6.00
Dec. 24.	Clerical services .....	10.00
24.	Arthur F. Kilbourne, refund on gummed list.....	.50
29.	O. P. Chase, postage and carfare .....	2.08
1915		
Jan. 26.	Stamped envelopes .....	21.08
Feb. 10.	Henry M. Hurd, History account.....	179.11
25.	Margaret M. Bloxham, reporting and typewriting pro- ceedings annual meeting 1914 .....	100.00
Mar. 1.	Henry P. Whalen, printing preliminary program, applica- tions, letters, etc. ....	36.75
18.	O. P. Chase, postage and carfare.....	30.15
Apr. 19.	E. S. Graney, telegrams.....	1.00
19.	Charles G. Wagner, telegrams, telephone, carfare and messenger .....	5.00
19.	Postage .....	8.00
24.	Henry P. Whalen, printing programs, envelopes, letters and notices .....	87.40
30.	Margaret M. Bloxham, services as stenographer, May, 1914, to May, 1915 .....	100.00
30.	Protested check (Dr. Albert M. Cross).....	2.00
30.	O. P. Chase, clerical services for year to May 10, 1915..	35.00
May 5.	Henry M. Hurd, History account.....	296.38
	Balance on hand as follows:	
	City National Bank, Binghamton, N. Y.....	1,866.42
	Emigrant Industrial Savings Bank.....	1,418.86
	Total .....	\$5,819.14
	Respectfully submitted,	

May 7, 1915.

CHARLES G. WAGNER, *Treasurer*.

THE PRESIDENT.—Unless there is objection, the report of the Treasurer will go to the Auditors.

THE PRESIDENT.—The next in order is the report of the Editors of the AMERICAN JOURNAL OF INSANITY, by Dr. Brush.

*To the Members of the American Medico-Psychological Association, Gentlemen:* I beg on behalf of the Editorial Board of the AMERICAN JOURNAL OF INSANITY to report that the JOURNAL is in a prosperous condition. The volume which has just closed, Volume 71, comprises over 800 pages, and the contents have been of unusual interest and have attracted in the way of notices and abstracts in other periodicals both at home and abroad more than usual attention.

Considering the fact that during the year we have paid for five numbers—including in this the extra number containing the addresses at the opening of the Henry Phipps Psychiatric Clinic—the financial status of the JOURNAL is good. Our receipts from advertisements have fallen off some, but the receipts from subscriptions have increased more than \$400.

Notice had been repeatedly called to the expense entailed in the reproduction of illustrations sent with articles for publication and of tables which frequently form part of articles, the expense of composition of which is more than double the cost of typesetting for an ordinary page.

By vote of council last evening the editors were empowered to require from authors who wish illustrations the payment of a proportionate part of the cost of preparation of plates and the excess cost over ordinary composition for the composition of tables.

Authors should also remember that the cost of new material added to proof or of corrections other than ordinary correction of printer's errors is large, and see that their manuscripts are sent to the JOURNAL in the exact form they are to appear.

Attention is also again called to the fact that by resolution of the Association, papers read at its meetings are the property of the Association and cannot be published except by permission of the Council.

The editors are occasionally asked to waive this rule, which of course they cannot do, nor indeed have they any desire to do so. They are also asked to publish papers which have been, without permission of the Council, given publication elsewhere. This they have declined to do, as they do not desire to present matter which the JOURNAL has not been accorded the courtesy of priority of choice and publication. In this decision they believe the Association will support them.

The authors of papers are again urged to place their manuscripts at once in the hands of the Secretary—and those who discuss papers to read, correct, and at once return, the stenographic report of their remarks.

The editors often desire to publish with papers the reports of discussions—but, alas, are unable to do so by reason of the neglect and apparent indifference of those who should at once return the stenographic notes sent for their inspection.

I transmit herewith the vouchers showing the receipts and expenditures for the year.

Respectfully submitted,

EDWARD N. BRUSH.

THE PRESIDENT.—You have heard the report of the Editors of the JOURNAL.

DR. HENRY M. HURD.—I move it be accepted and the financial report referred to the Auditors.

Motion duly seconded and carried.

THE PRESIDENT.—I will call call for the report of the Committee on History of Institutional Care of the Insane in the United States and Canada, Dr. Hurd, chairman.

*To the American Medico-Psychological Association:* In behalf of the Committee on "The Institutional Care of the Insane in the United States and Canada," I would make the following report:

1. At the last meeting the committee recommended to the Council that authority be given to publish the first volume of the "History," as it was in a sufficient state of forwardness, but upon considering the whole situation it was found impossible to adequately describe the book or to give subscribers a definite idea of what expense they were to incur for the whole work. It accordingly seemed best to finish all the volumes so as to get estimates on the total cost of printing the same, before sending out circulars to such institutions, individuals and libraries as were likely to subscribe for copies.

The labor of compiling and completing the work has been very arduous, and there have been serious delays in securing material, but not as much as one would anticipate when it is remembered that the material must come from more than 50 states and dependencies in this country alone, and several hundred institutions.

2. The committee now has data respecting the work and can state definitely that it will comprise four volumes of about 500 pages each, corresponding in paper, typography and general appearance with the *TRANSACTIONS* as at present published, but differently bound and distinctively lettered.

3. Proposals for cost of printing have now been obtained from three large and responsible firms, who have bid upon the preparation of the same volume. The lowest bidder is the Lord Baltimore Press in the sum of \$1146 per volume for an edition of 1000 copies of about 500 printed pages, bound in cloth and ready to deliver.

If illustrations are inserted, and they should be, the illustrations for each volume will cost about \$240, provided there are 25 illustrations to each volume. The four volumes, of course, will altogether cost in the neighborhood of \$5000. The committee would recommend that the price for the four volumes be fixed at \$10, and that a discount of 20 per cent be given to members of the Association and to institutions represented by them, which will make the book cost \$2 per volume. And that the committee be authorized to send out immediately a prospectus and circulars giving tables of contents and return postal cards widely, asking for subscriptions.

4. The committee would suggest that reprints of articles desired by authors of different histories be given at actual cost.

5. Also that authority be given the committee to begin publication at once, and that the remittances received may be used by the Treasurer to pay the expenses of publication so that the profits if any, may go to the Association to reimburse it for the expenses incurred.

The committee is to be congratulated on the fact that the work of compilation is nearly over, and that the material required to fill in gaps is comparatively small. It also desires to express very grateful appreciation for the cooperation and labor of those who have assisted in the preparation of the "History."

The chairman of the committee is aware that he has been a thorn in the flesh to many members of the Association by reason of his persistent and more or less constant importunities. He desires to apologize for this persistence and to say that there seemed no other manner in which he could obtain the desired histories.

The work of printing the first volume can go on systematically during the present Summer.

Very respectfully submitted,

HENRY M. HURD,

*In Behalf of Committee.*

DR. HENRY M. HURD.—I move that this whole matter of publishing the "History" be referred to the Council, with power.

Motion duly seconded and carried.

DR. C. B. BURR.—I think the Association should express its appreciation of the activity of the chairman of this committee.

THE PRESIDENT.—Dr. Burr is right. This has been a tremendous amount of work and the committee has done its work well, evidence of which will be seen in the publication which will soon go forward. I am quite sure that I voice the sentiment of every member of the Association in expressing to the chairman of this committee our appreciation of his tremendous task, which he has done so very well indeed. [Applause.]

I now wish to announce the Nominating Committee, after which we will have a brief recess for the purpose of registration. This committee will consist of the following members:

Dr. Hubert Work, of Colorado; Dr. G. Alder Blumer, of Rhode Island, and Dr. Charles G. Hill, of Maryland.

Notice is given that owing to the absence of some of the writers, papers scheduled for this evening, not requiring lantern slides, will be presented this afternoon. There has also been an addition to the program for this evening in the nature of moving picture films; one will be provided by the management of the hotel, on the subject of hydrotherapeutics, and the other comes from the New York State hospitals for the insane. We will now have a recess for the purpose of registration.

The following members registered, and were in attendance during the whole or a part of the meeting:

Abbot, Florence Hale, M.D., Assistant Physician Dr. Mellus' Private Hospital, Newton, Mass.

Allen, J. Berton, M.D., Assistant Physician State Hospital, Central Islip, N. Y.

Allen, H. D., M.D., Superintendent Allen's Invalid Home, Milledgeville, Ga.

Anderson, Albert, M.D., Superintendent Dix Hill State Hospital, Raleigh, N. C.



Anderson, Paul V., M. D., Resident Physician Westbrook Sanatorium, Richmond, Va.

Applegate, C. F., M. D., Superintendent Mt. Pleasant State Hospital, Mt. Pleasant, Ia.

Baber, Armitage, M. D., Superintendent Dayton State Hospital, Dayton, O.

Bancroft, Charles P., M. D., Superintendent New Hampshire State Hospital, Concord, N. H.

Barlow, Charles A., M. D., Superintendent Spencer State Hospital, Spencer, W. Va.

Bernstein, Charles, M. D., Superintendent Rome State Custodial Asylum, Rome, N. Y.

Blumer, G. Alder, M. D., Medical Superintendent Butler Hospital, Providence, R. I.

Brooks, Swepson J., Physician-in-Charge St. Vincent's Retreat, Harrison, Washington Co., N. Y.

Brown, Sanger, M. D., Physician-in-Charge Kenilworth Sanitarium, Kenilworth, Ill.

Brown, G. W., M. D., Superintendent Eastern State Hospital, Williamsburg, Va.

Brush, Edward N., M. D., Physician-in-Chief and Superintendent Shepard and Enoch Pratt Hospital, Towson, Md.

Buchanan, J. M., M. D., Superintendent East Mississippi Insane Hospital, Meridian, Miss.

Burr, C. B., M. D., Medical Director Oak Grove Hospital, Flint, Mich.

Burgess, T. J. W., M. D., Medical Superintendent Protestant Hospital for the Insane, Box 2280, Montreal, Que., Canada.

Carey, H. M., M. D., Odessa, Del.

Clark, J. Clement, M. D., Superintendent Springfield State Hospital, Sykesville, Md.

Cornell, Wm. B., M. D., Executive Secretary Mental Hygiene Committee, 401 Garrett Building, Baltimore, Md.

Cotton, Henry A., M. D., Medical Director New Jersey State Hospital, Trenton, N. J.

Cozad, H. Irving, M. D., Clinical Director Fair Oaks Villa, Cuyahoga Falls, O.

Crumbacker, W. P., M. D., Superintendent Independence State Hospital, Independence, Ia.

Darling, Ira A., M. D., Assistant Physician Warren State Hospital, Warren, Pa.

Dewey, Richard, M. D., Physician-in-Charge Milwaukee Sanitarium, Wauwatosa, Wis.

Dold, Wm. Elliott, M. D., Physician-in-Charge River Crest Sanitarium, Astoria, L. I., N. Y. C.

Drewry, Wm. F., M. D., Superintendent Central State Hospital, Petersburg, Pa.

Dunton, Wm. Rush, Jr., M. D., Assistant Physician Sheppard and Enoch Pratt Hospital, Towson, Md.

Emerson, Ernest B., M. D., Medical Director Bridgewater State Hospital, State Farm, Mass.

Evans, Britton D., M. D., Medical Director The New Jersey State Hospital at Morris Plains, Greystone Park, N. J.

Eyman, H. C., M. D., Superintendent Massillon State Hospital, Massillon, O.

Faison, W. W., M. D., Superintendent State Hospital, Goldsboro, N. C.

Ferris, Albert Warren, M. D., Saratoga Springs, N. Y.

Fordyce, O. O., M. D., Superintendent Athens State Hospital, Athens, O.

Forster, J. M., M. D., Medical Superintendent Hospital for Insane, Toronto, Ont., Canada.

Frost, Henry P., M. D., Superintendent Boston State Hospital, Dorchester Centre, Mass.

Fuller, Daniel H., M. D., Senior Assistant Physician Pennsylvania Hospital for Insane, Philadelphia, Pa.

Garlick, James H., M. D., First Assistant Physician Western State Hospital, Staunton, Va.

Gilliam, Charles F., M. D., Superintendent Columbus State Hospital, Columbus, O.

Gillis, A. C., M. D., Neurologist Mercy Hospital, 914 N. Charles St., Baltimore, Md.

Givens, Amos J., M. D., Proprietor and Superintendent Givens Sanitarium, Stamford, Conn.

Gregg, Donald, M. D., Associate Physician Channing Sanitarium, Brookline, Mass.

Green, Edward M., M. D., Clinical Director Georgia State Sanitarium, Milledgeville, Ga.

Gundry, Alfred T., M. D., Medical Director Gundry Sanitarium, Catonsville, Md.

Gundry, Richard F., M. D., Medical Director The Richard Gundry Home, Catonsville, Md.

Guthrie, L. V., M. D., Superintendent Huntington State Hospital, Huntington, W. Va.

Hall, James K., M. D., Medical Superintendent Westbrook Sanatorium, Richmond, Va.

Hancker, Wm. H., M. D., Medical Superintendent Delaware State Hospital, Farnhurst, Del.

Harrington, Arthur H., M. D., Superintendent State Hospital for the Insane, Howard, R. I.

Harding, George Tryon, Jr., M. D., 318 E. State St., Columbus, O.

Hasking, A. P., M. D., Official Examiner Hudson Co., N. J., Indigent Insane, Court House, Jersey City, N. J.

Haviland, C. Floyd, M. D., First Assistant Physician Kings Park State Hospital, Kings Park, N. Y.

Herring, A. P., M. D., Secretary State Lunacy Commission, 330 North Charles St., Baltimore, Md.

Henry, H. C., M. D., Assistant Physician Central State Hospital, Petersburg, Va.

Heyman, M. B., M. D., Assistant Superintendent Central Islip State Hospital, Central Islip, N. Y.

Hill, Charles G., M. D., Physician-in-Chief Mt. Hope Retreat, Baltimore, Md.

Hills, Frederick L., M. D., Superintendent Bangor State Hospital, Bangor, Me.

Hobbs, A. T., M. D., Medical Superintendent Homewood Sanitarium, Guelph, Ont., Canada.

Houston, John A., M. D., Superintendent Northampton State Hospital, Northampton, Mass.

Hurd, Arthur W., M. D., Superintendent Buffalo State Hospital, Buffalo, N. Y.

Hurd, Henry M., M. D., Secretary Trustees Johns Hopkins Hospital, 1210 Fidelity Building, Baltimore, Md.

Jones, L. M., M. D., Superintendent Georgia State Sanitarium, Milledgeville, Ga.

Kelly, Wm. E., M. D., Assistant Physician Middletown State Homeopathic Hospital, Middletown, N. Y.

Kineon, George G., M. D., Superintendent Ohio Hospital for Epileptics, Gallipolis, O.

King, George, M. D., County Physician, 239 Second St., Jersey City, N. J.

Kline, George M., M. D., Superintendent Danvers State Hospital, Hathorne, Mass.

Klopp, Henry I., M. D., Superintendent and Physician Homeopathic State Hospital, Allentown, Pa.

La Moure, Charles T., M. D., Superintendent Connecticut School for Imbeciles, Lakeville, Conn.

Lang, Walter E., M. D., Senior Assistant Physician Homeopathic State Hospital, Allentown, Pa.

Langdon, F. W., M. D., Medical Director Cincinnati Sanitarium, Box 4, College Hill, Cincinnati, O.

Lewis, J. M., M. D., Cleveland, O.

Long, T. L., M. D., Assistant Physician Cherokee State Hospital, Cherokee, Ia.

Mabon, William, M. D., Medical Superintendent Manhattan State Hospital, Wards Island, New York City.

MacDonald, Carlos F., M. D., Physician-in-Charge Dr. MacDonald's House, Central Valley, N. Y.

Mayer, Edward E., M. D., Keenan Building, Pittsburgh, Pa.

McKinniss, C. R., M. D., Medical Director and Superintendent Pittsburgh City Hospital, Boyce, Pa.

Meredith, H. B., M. D., Superintendent and Physician State Hospital for the Insane, Danville, Pa.

Mitchell, H. W., M. D., Superintendent State Hospital for the Insane, Warren, Pa.

Moore, J. W., M. D., First Assistant Physician Matteawan State Hospital, Beacon, N. Y.

Mullan, E. H., M. D., U. S. Public Health Service, Ellis Island, N. Y.

Murphy, Wm. A., M. D., Clinical Director Goldsboro State Hospital, Goldsboro, N. C.

Nevin, John, M. D., Jersey City, N. J.

Nevin, Ethan A., M. D., Superintendent State Custodial Asylum, Newark, N. Y.

Newcomb, Philip B., M. D., Clinical Director State Hospital, Osawatomie, Kans.

Nichols, John H., M. D., Superintendent and Resident Physician State Infirmary, Tewksbury, Mass.

O'Harrow, Marian, M. D., Assistant Physician Friends' Hospital, Frankford, Philadelphia, Pa.

O'Malley, Mary, M. D., Senior Assistant Physician Government Hospital for the Insane, Washington, D. C.

Orton, Samuel T., M. D., Clinical Director and Pathologist Pennsylvania Hospital for the Insane, Philadelphia, Pa.

Palmer, H. L., M. D., Superintendent Utica State Hospital, Utica, N. Y.

Payne, Guy, M. D., Medical Superintendent Essex Co. Hospital, Cedar Grove, N. J.

Peterson, Jessie M., M. D., Chief Resident Physician Department for Women, State Hospital for Insane, Norristown, Pa.

Price, Susan A., M. D., Assistant Physician Eastern State Hospital, Williamsburg, Va.

Purdum, H. D., M. D., Springfield State Hospital, Sykesville, Md.

Ricksher, Charles, M. D., Pathologist State Psychopathic Institute, Kankakee, Ill.

Ridgway, R. F. L., M. D., First Assistant Physician Pennsylvania State Lunatic Hospital, Harrisburg, Pa.

Ripley, Horace G., M. D., Assistant Superintendent Taunton State Hospital, Taunton, Mass.

Rosanoff, A. J., M. D., First Assistant Physician Kings Park State Hospital, Kings Park, N. Y.

Ross, Donald L., M. D., Superintendent Connecticut Colony for Epileptics, Mansfield Depot, Conn.

Russell, Wm. L., M. D., Medical Superintendent Bloomingdale Hospital, White Plains, N. Y.

Sargent, G. F., M. D., Assistant Physician Sheppard and Enoch Pratt Hospital, Towson, Md.

Scanland, J. M., M. D., Superintendent Montana State Hospital, Warm Springs, Mont.

Scheetz, Mildred E., M. D., Government Hospital for the Insane, Washington, D. C.

Scribner, Ernest V., M. D., Medical Superintendent Worcester State Hospital, Worcester, Mass.

Searcy, J. T., M. D., Superintendent Alabama Insane Hospitals, Tuscaloosa, Ala.

Shanahan, Wm. T., M. D., Superintendent Craig Colony, Sonyea, N. Y.

Shaw, Arthur L., M. D., Assistant Physician Craig Colony for Epileptics, Sonyea, N. Y.

Smith, Samuel Edwin, M. D., Medical Superintendent Eastern Indiana Hospital for the Insane, Richmond, Ind.

Smith, R. W. Bruce, M. D., Inspector of Hospitals, Toronto, Ont.

Southard, E. E., M. D., Director Psychopathic Hospital and Pathologist State Board of Insanity, 74 Fenwood Road, Boston, Mass.

Stearns, Albert Warren, M. D., Massachusetts State Board of Insanity, 520 Commonwealth Ave., Boston, Mass.

Stevenson, W. W., M. D., Assistant Physician New Jersey State Hospital, Trenton, N. J.

Stick, H. Louis, M. D., Superintendent and Treasurer Grafton State Hospital, Box 1178, Worcester, Mass.

Swift, Walter B., M. D., 110 Bay State Road, Boston, Mass.

Terflinger, F. W., M. D., Medical Superintendent Northern Hospital for the Insane, Logansport, Ind.

Thom, Douglas A., M. D., Pathologist Monson State Hospital, Palmer, Mass.

Thompson, Charles E., M. D., Superintendent Gardner State Colony, Gardner, Mass.

Thorne, Frederic H., M. D., Pathologist New Jersey State Hospital, Morris Plains, N. J.

Torney, George H., M. D., Associate Physician Bournewood Hospital, South St., Brookline, Mass.

Tuttle, George T., M. D., Medical Superintendent McLean Hospital, Waverley, Mass.

Tyson, Forrest C., M. D., Superintendent Augusta State Hospital, Augusta, Me.

Van Nuys, W. C., M. D., Superintendent Indiana Village for Epileptics, Newcastle, Ind.

Wade, J. Percy, M. D., Medical Superintendent Spring Grove State Hospital, Catonsville, Md.

Wagner, Charles G., M. D., Medical Superintendent Binghamton State Hospital, Binghamton, N. Y.

Walker, Lewis M., M. D., First Assistant Physician Medfield State Hospital, Harding, Mass.

Wardner, Drew, M. D., Assistant Physician Essex Co. Hospital, Cedar Grove, N. J.

Weeks, David F., M. D., Superintendent New Jersey State Village for Epileptics, Skillman, N. J.

Weston, Paul G., M. D., Pathologist State Hospital, Warren, Pa.

White, Wm. A., M. D., Superintendent Government Hospital for the Insane, Washington, D. C.

Wilsey, O. J., M. D., Physician-in-Charge Long Island Home, Amityville, L. I.



Wilson, Anita Alvera, M. D., Assistant Physician Government Hospital for the Insane, Washington, D. C.

Work, Hubert, M. D., Superintendent Woodcroft Hospital, Pueblo, Colo.

Yarbrough, Y. H., M. D., Assistant Physician Georgia State Sanitarium, Milledgeville, Ga.

Young, Ernest H., M. D., Assistant Superintendent Rockwood Hospital, Kingston, Ont., Canada.

The following visitors and guests of the Association registered their names with the Secretary:

Anderson, Mrs. Albert, Raleigh, N. C.

Atkinson, Gordon I., Member Board of Managers Spring Grove State Hospital, Catonsville, Md.

Ball, Nellie F., Clerk State Board of Insanity, Boston, Mass.

Barlow, Mrs. Chas. A., Spencer, W. Va.

Berry, Mrs. Roxie I., Superintendent of Nurses Virginia State Epileptic Colony, Madison Heights, Va.

Bohannon, J. Gordon, Member Board of Directors Virginia Hospitals, Petersburg, Va.

Bohannon, Mrs. J. Gordon, Petersburg, Va.

Brent, M. S., M. D., Assistant Physician Central State Hospital, Petersburg, Va.

Brush, Mrs. Edward N., Towson, Md.

Brown, Mrs. G. W., Williamsburg, Va.

Brown, Miss Louise, Madison Heights, Va.

Buchanan, Mrs. J. M., Meridian, Miss.

Burgess, Mrs. T. J. W., Montreal, Que., Canada.

Butler, Amos W., Secretary Indiana Board of State Charities, Indianapolis, Ind.

Carleton, B. L., M. D., Assistant Physician Central State Hospital, Petersburg, Va.

Cornell, Mrs. W. B., Baltimore, Md.

Crumbaker, Mrs. W. P., Independence, Ia.

Drewry, Mrs. W. F., Petersburg, Va.

Eckhardt, John Carl, M. D., Assistant Physician Central State Hospital, Petersburg, Va.

Epstein, M., Treasurer Board of Trustees Northern Hospital for the Insane, Logansport, Ind.

Evans, Albert, M. D., Trustee Medfield State Hospital, 409 Marlboro St., Boston, Mass.

Evans, Mrs. B. D., Greystone Park, N. J.

Forster, Mrs. J. M., Toronto, Ont., Canada.

Freeman, Douglas S., Richmond, Va.

Freeman, Mrs. Douglas S., Richmond, Va.

Frink, H. W., M. D., Chief of Neurological Clinic, Cornell Dispensary, 17 East 38th St., New York City.

Gamble, C. W., Mt. Morris, N. Y.

- Gilliam, Robert, Chairman Board of Directors, Petersburg, Va.  
Greene, Ralph N., M. D., Chief Physician Florida State Hospital, Chattahoochee, Fla.  
Guthrie, Mrs. Margaret Lynn, Huntington, W. Va.  
Haines, Emily L., Director of Industries State Board of Insanity, Boston, Mass.  
Haltermann, Charles W., M. D., Superintendent Weston State Hospital, Weston, W. Va.  
Haviland, Mrs. C. Floyd, Kings Park, N. Y.  
Houston, Harry R., Hampton, Va.  
Hudgings, Mrs. Edward, Chase City, Va.  
Johnson, J. E., American Laundry Machinery Co., Cincinnati, O.  
Jones, Mrs. L. M., Milledgeville, Ga.  
Kline, Mrs. Geo. M., Hathorne, Mass.  
Klopp, Mrs. Henry I., Allentown, Pa.  
La Moure, Mrs. Chas. T., Lakeville, Conn.  
Lang, Mrs. Walter E., Allentown, Pa.  
McCarthy, Rev. W. B., Resident Chaplain Craig Colony, Sonyea, N. Y.  
McCarty, Chas. W., American Laundry Machinery Co., 132 W. 27th St., New York City.  
McCullough, Mrs. F. F., Huntington, W. Va.  
Miller, Mrs. George F., Huntington, W. Va.  
Moody, Ray M., M. D., Assistant Physician Middletown State Hospital, Middletown, N. Y.  
Moosbrugger, Herman F., President New Jersey State Village for Epileptics, Skillman, N. J.  
Nevin, Mrs. John, Jersey City, N. J.  
Old, Donathan W., M. D., Norfolk, Va.  
Osborne, Mrs. C. A., Keysville, Va.  
Parker, G. C., Norfolk, Va.  
Pruden, A. A., Major and Chaplain U. S. Army, Fortress Monroe, Va.  
Roe, Miss Margaret, Teacher Eastern State Hospital, Williamsburg, Va.  
Rosanoff, Mrs. A. J., Kings Park, N. Y.  
Shiftlett, Miss, Superintendent of Nurses Southwestern State Hospital, Marion, Va.  
Smith, Mrs. R. W. Bruce, Toronto, Ont., Canada.  
Smith, Mrs. Samuel E., Richmond, Ind.  
Sommer, H. J., M. D., Medical Superintendent Blair Co. Hospital for the Insane, Hollidaysburg, Pa.  
Stearns, Mrs. A. W., Boston, Mass.  
Terflinger, Mrs. F. W., Logansport, Ind.  
Thompson, Mrs. Chas. E., Gardner, Mass.  
Tuttle, Mrs. George T., Waverley, Mass.  
Walker, Mrs. Gerna Saville, Social Worker Medfield State Hospital, Harding, Mass.  
Weeks, Mrs. David F., Skillman, N. J.  
Williams, C. F., M. D., Superintendent State Hospital for the Insane, Columbia, S. C.

Williams, Frankwood E., M.D., Executive Secretary Massachusetts Society for Mental Hygiene, Boston, Mass.

Wilsey, Mrs. O. J., Amityville, L. I., N. Y.

THE PRESIDENT.—The meeting will please come to order. I wish to call your attention to the fact that ten of our members have passed away during the year, and in their memory I will ask you to kindly stand while their names are read by the Secretary, and then a brief prayer will be offered by Major Pruden, of Fortress Monroe, Va.

The Secretary read the following memorial notices by title:

Dr. R. J. Dysart, by Adin Sherman, M.D.; Dr. Brooks F. Beebe, by F. W. Langdon, M.D.; Dr. Wm. B. Moseley, by Elbert M. Somers, M.D.; Dr. Samuel F. Mellen, by Willis E. Merriman, M.D.; Dr. Oscar R. Long, by Henry M. Hurd, M.D.; Dr. Wesley Mills, by Charles K. Clarke, M.D.; Dr. D'Orsay Hecht, by Sanger Brown, M.D.; Dr. H. Walton Wood, by Henry A. Cotton, M.D.; Dr. Henry Smith Noble, by Charles E. Stanley, M.D.; Dr. Theodore W. Fisher, by Walter Channing, M.D.

Major Pruden then offered a brief prayer.

THE PRESIDENT.—I desire to announce that the exhibit of the Committee on Diversional Occupation is now ready for inspection, and may be found in the palm-room. In this connection also I wish to announce the appointment of the committee having in charge the awards of this exhibit, as follows:

Dr. Charles Ricksher, of Illinois; Dr. Edward M. Greene, of Georgia, and Dr. Frederick L. Hills, of Maine.

The constitution requires that the President shall deliver an inaugural address. I would ask Dr. Brush, the Vice-President, to take the Chair.

The President of the Association, Dr. Samuel E. Smith, read his address, "The Relation of Psychiatry to the State," which was greeted with applause.

DR. HENRY M. HURD.—We certainly are indebted to the President for this excellent address; it covers a wide field for thought; his suggestions are extensive, practical, and are such that I believe we should all act upon them. I move a vote of thanks.

Motion seconded.

DR. BRUSH (presiding).—It has been moved and seconded that a vote of thanks be extended to the President for his excellent address. I shall ask for a standing vote.

Motion unanimously carried.

DR. BRUSH.—I take great pleasure in extending to you, Mr. President, on behalf of this Association, its cordial thanks for your address. We realize that you come from a state toward which the center of literary activity is moving; we believe you come from a state concerning which one might say in paraphrasing certain familiar lines that it—

“Counts that day lost whose low descending sun  
Sees no new novel writ, no fresh romance begun.”

But we do not believe that you have presented to us this noon a romance; we believe that you have brought us the result of your years of work and observation and study, and that you have given us very much food for thought. I take very great pleasure, therefore, in extending to you the thanks of the Association.

THE PRESIDENT.—I thank you very much for your kind expressions.

Adjournment.

#### AFTERNOON SESSION.

THE PRESIDENT.—The meeting will please come to order. We will proceed with the reading of papers. I will ask Dr. H. G. Eyman, of Massillon, O., to read his paper.

Dr. Eyman read his paper entitled “Institutional Stasis.” Discussed by Dr. Burgess.

DR. WM. A. WHITE.—I think that practically all of the members of the Association here are cognizant of the difficulty at the New Hampshire State Hospital some months ago, which resulted in the removal of Dr. Bancroft. At the time when that trouble was at its height the Governor of New Hampshire was bombarded with all sorts of letters protesting against his contemplated act. Dr. Bancroft informed me this morning that he had been reinstated by the present Governor. Such an act is absolutely in harmony with everything this Association has ever stood for, and I do not think we should limit ourselves to criticising acts that we do not approve of, but that we should be just as ready to commend actions that we do approve of, and with that end in view I am going to offer a motion that the following resolution be adopted by the Association:

*Resolved*, That this Association desires to express to His Excellency, Hon. Rolland H. Spaulding, Governor of New Hampshire, its appreciation of his action in reinstating Dr. Charles P. Bancroft as superintendent of the New Hampshire State Hospital at Concord, as a just recognition of his highly valuable services in the scientific care and treatment of the insane, and as an official recognition of the error that was committed when he was removed from the office which he had filled with conspicuous ability for many years.

DR. H. W. MITCHELL.—As a native of New Hampshire and a friend of Dr. Bancroft, I wish to second that motion.

THE PRESIDENT.—You have heard the motion of Dr. White—what is your wish?

Motion unanimously carried.

THE PRESIDENT.—I wish to state that it is advisable to add to the committee the Chair appointed this morning on awards, the names of two ladies. I am gradually losing faith in the judgment of the members of the committee, and I believe it would be of great assistance to them if I named these ladies: Mrs. T. J. W. Burgess, of Montreal, and Mrs. Richard F. Gundry, of Catonsville, Md.

I am informed that Dr. May is unable to be present, and requests that his paper entitled "Some of the More Recent Problems Connected with State Care of the Insane," be read by title.

As an addition to the program, we have a paper by Dr. Richard Dewey. I will ask Dr. Dewey to read his paper at this time.

The following papers were then read:

"The Evolution of Detached Wards (so-called 'cottages') for the Insane," by Richard Dewey, M. D., Wauwatosa, Wis.

"Recent Extension of Out-patient Work in the Massachusetts State Hospitals for the Insane and Feeble-Minded," by L. Vernon Briggs, M. D., and A. Warren Stearns, M. D., Boston, Mass., read by Dr. Stearns. Discussed by Drs. Houston, Burr and Dr. Stearns in closing.

"Some Practical Tasks in Mental Hygiene," by Thomas W. Salmon, M. D., New York, N. Y. (By title.)

"Recidivation in Insanity, With Considerations on Classifications," by George Villeneuve, M. D., Montreal, Que. (By title.)

THE PRESIDENT.—That brings our program up to the hour. If there is no further business we will adjourn and meet again promptly at 8.30 this evening.

Adjournment.

At 4 p. m., by courtesy of the Commanding Officer of Fortress Monroe, a visit was paid to the coast batteries and parade ground, where a regimental parade was witnessed. Cars were provided by the Committee of Arrangements to convey the members and their friends to and from the Fort.



## EVENING SESSION.

THE PRESIDENT.—The Association will please come to order. The first thing on the program is a paper by Dr. Ferris, which we will hear at this time.

The following papers were read:

"State Ownership of the Springs of Saratoga and State Control in Developing and Utilizing their Facilities," by Albert Warren Ferris, M. D., Saratoga Springs, N. Y. (Illustrated by colored stereopticon slides.)

"A Further Study of Brain Anatomy in Manic Depressive Psychoses," by E. E. Southard, M. D., Boston, Mass. (Illustrated by lantern slides.)

"Anatomical Researches, Massachusetts School for Feeble-Minded," by Walter E. Fernald, M. D., Waverley, Mass., E. E. Southard, M. D., Boston, Mass., and A. E. Taft, M. D., Cambridge, Mass. Read by Dr. Southard. (Illustrated by lantern slides.)

THE PRESIDENT.—The management of the hotel has asked permission to have Dr. Russell give a lecture before the Association on the subject of Hydrotherapy, which we will be pleased to hear now.

Dr. Russell presented a moving picture film showing the Nauheim and other baths in operation at the hotel.

THE PRESIDENT.—The next in order will be a film showing scenes at the Binghamton State Hospital, with explanatory remarks by Dr. Wagner.

Dr. Charles G. Wagner, of Binghamton, N. Y., presented a motion picture film showing diversions, occupations, etc., in New York State hospitals for the insane, prepared under the direction of the State Hospital Commission of New York State, most of which were taken at the Binghamton State Hospital. A duplicate of this reel is being used daily at the Panama-Pacific Exposition in San Francisco at the present time.

On motion the meeting adjourned.

WEDNESDAY, MAY 12, 1915, 10 A. M.

THE PRESIDENT.—The first in order is the report of the Council.

## REPORT OF THE COUNCIL FOR MAY 11, 1915.

The Council recommends the election of the following named physicians to the associate class: Inez A. Bentley, M. D., Kings Park, N. Y.; Harriet F. Coffin, M. D., Kings Park, N. Y.; Frederick C. Devendorf, M. D., Beacon, N. Y.; Pearl T. Haskell, M. D., Bangor, Me.; Thomas D. MacDonald, M. D., Central Valley, N. Y.; Susan A. Price, M. D., Williamsburg, Va.; Mildred E. Scheetz, M. D., Washington, D. C.; George A. Sharp, M. D., Beacon, N. Y.; Henry G. Smith, M. D., Cedar Grove, N. J.

The Council has received the following applications for active membership. In accordance with the constitution, final action will be deferred until next year: Ralph N. Greene, M. D., Chattahoochee, Fla.; Henry J. Sommer, M. D., Hollidaysburg, Pa.; W. K. Walker, M. D., Pittsburgh, Pa.

Respectfully submitted,

CHARLES G. WAGNER, *Secretary*.

On motion, duly seconded, the report of the Council was accepted and adopted.

THE PRESIDENT.—The next order of business is the election of new members and the transfer from associate to active membership, as recommended in the report of the Council yesterday. Do you wish to have the Secretary again read the names?

DR. BURR.—I move the reading be omitted.

Motion duly seconded and carried.

(This list is given in the first report of the Council.)

DR. EYMAN.—I move that the Secretary be authorized to cast the ballot as printed, electing these physicians to active and associate membership.

Motion duly seconded and carried.

THE PRESIDENT.—The Secretary has cast the ballot of the Association and these members are duly elected.

We will now hear the report of the Nominating Committee, Dr. Work, Chairman.

The Nominating Committee made the following report:

For President, Edward N. Brush, M. D., Towson, Md.

For Vice-President, Charles G. Wagner, M. D., Binghamton, N. Y.

For Secretary-Treasurer, H. C. Eyman, M. D., Massillon, O.

For Councilors for three years: S. E. Smith, M. D., Richmond, Ind.; Charles P. Bancroft, M. D., Concord, N. H.; Arthur P. Herring, M. D., Baltimore, Md.; J. M. Forster, M. D., Toronto, Ont.

For Auditor for three years, A. S. Priddy, M. D., Madison Heights, Va.  
For Auditor (in place of Dr. H. C. Eyman), C. E. Laughlin, M. D.,  
Evansville, Ind.

Respectfully submitted,

HUBERT WORK,  
G. ALDER BLUMER,  
CHARLES G. HILL,  
*Committee.*

DR. WORK.—I move you that the gentlemen named be made the officers of this Association for the time for which they are named.

THE PRESIDENT.—The Association has heard the report of the Nominating Committee, having named officers for the ensuing year, and the motion of the Chairman that the report be approved. All in favor please signify by saying aye; opposed, no.

Carried.

On motion, duly seconded and carried, the Secretary was instructed to cast a ballot for the gentlemen named as the officers of the Association for the ensuing year.

THE PRESIDENT.—The next in order is the report of the Auditors.

The Auditors beg to report as follows: Accounts and vouchers of Treasurer examined. All vouchers properly receipted and all accounts correct and in good form; bank books examined and balances found to be in harmony with Treasurer's report.

Accounts of managing editor of AMERICAN JOURNAL OF INSANITY examined, and all vouchers found properly receipted, and accounts correct.

Respectfully submitted,

H. C. EYMAN,  
M. B. HEYMAN,

May 12, 1915.

*Auditors.*

DR. WM. A. WHITE.—I move the report of the Auditors be received and approved.

Motion duly seconded and carried.

THE PRESIDENT.—As it is the duty of the Chair to appoint a Committee on Resolutions, I will appoint the following members: Dr. Arthur W. Hurd, Buffalo, N. Y.; Dr. R. W. Bruce Smith, Toronto, Ont.; Dr. W. P. Crumbacker, Independence, Ia.

The next order of business is the report of the Committee on Psychology in Medical Schools.

DR. WM. A. WHITE.—The chairman of the committee, Dr. Abbot, is not prepared to make a report this year; he probably will be next year.

THE PRESIDENT.—As the committee has no report to submit, that committee will be continued throughout the coming year.

We will now proceed to the reading of papers.

The following papers were read:

"Methods of Promoting the Nutrition in the Psychoses," by Sanger Brown, M. D., Kenilworth, Ill. Discussed by Drs. Hill, Hurd and Brown in closing.

"The Value of Routine Laboratory Work in Psychiatry," by Paul G. Weston, M. D., and Ira A. Darling, M. D., Warren, Pa.

THE PRESIDENT.—In view of the short time at our disposal this morning, I will, with the approval of the reader of this paper, postpone the discussion until we have heard the other papers on the program, and let these papers come in the same discussion.

The following papers were read:

"The Dementia Præcox Problem," by Henry A. Cotton, M. D., Trenton, N. J. Discussed by Drs. White, Work, Evans, Southard, Mitchell and Cotton.

"The Relation of Angular Gyrus Lesions to Catatonia," by E. E. Southard, M. D., and M. M. Canavan, M. D., Boston, Mass.

"The Treatment of Paresis," by Britton D. Evans, M. D., and Frederic H. Thorne, M. D., Morris Plains, N. J.

THE PRESIDENT.—With the consent of the members and in view of the lateness of the hour, we will omit discussion of Dr. Evans' paper until to-morrow, when we will hear a paper on a similar subject by Dr. Wardner. We will be obliged to adjourn now in order to make the boat at 2 o'clock.

On motion the meeting adjourned.

#### AFTERNOON SESSION.

At 2.30 p. m. the members of the Association and their friends enjoyed a ride on Hampton Roads on the boat *Endeavor*. Among the points of historic interest passed during the trip were the Rip Raps, the site of the naval battle between the *Monitor* and the *Merrimac*, the National Soldiers' Home, etc. By courtesy of Mr. Palen, Assistant General Manager of the Newport News Shipyard, a 30 minute stop was made to see that great plant, and the battleship *Vermont* was also visited by some of the party. A luncheon was served on board the boat and a chorus of colored singers sang Southern melodies. A most enjoyable afternoon was spent, the party returning at 7 p. m.

## EVENING SESSION.

THE PRESIDENT.—We are assembled this evening to hear the annual address, and we are fortunate indeed that we have with us for the purpose of addressing us a distinguished and cultured gentleman of the Old Dominion, a journalist, publicist, a man who has taken an active and important interest in the public health of the state and community, who has had much to do with the advancing of ideas in the matter of the care of the unfortunates of this state, in that he has given special attention to this subject; he has also given special attention to many subjects, and I am sure that he will address us interestingly and instructively this evening. It affords me very great pleasure to introduce to you Dr. Douglas Southall Freeman, of Richmond, Virginia.

Dr. Freeman then delivered his address "Publicity and the Public Mind," which was greeted with applause.

DR. BLUMER.—*Mr. President, Ladies and Gentlemen:* There are times when even an inferior psychologist may interpret the psychology of a crowd without the aid of a newspaper and without knowing anything about them, and this is one of those times. Now, notwithstanding the restraint imposed by courtesy and conventions, we have all of us, I think, experienced a pressure to speech as this gentleman has been talking, and the words coming to our lips have been, on the part of the men, "Gee whiz!" and on the part of the ladies, "Isn't he perfectly lovely?" I have heard a great many addresses before this society, and I do not remember any that I have listened to with greater pleasure than the address I have just listened to by Dr. Freeman. It has been entertaining in style and altogether a delightful occasion. I therefore rise, Mr. President, as the spokesman of this audience, to offer to Dr. Freeman a very hearty vote of thanks for the great treat that he has given us.

THE PRESIDENT.—As a further expression of appreciation for this excellent address, I will ask the members of the Association and guests to rise.

Motion unanimously carried.

THE PRESIDENT.—This session will now adjourn, and if you will kindly gather in the drawing-room we will there have the pleasure of meeting Dr. and Mrs. Freeman personally.

Adjournment.

Following adjournment the members and guests of the Association assembled in the drawing-room where a reception was held, after which the management of the hotel furnished music for dancing in the ball-room, and refreshments were served.



THURSDAY, MAY 13, 1915, 10 A. M.

THE PRESIDENT.—The Association will please come to order. The first in order will be the report of the Council by the Secretary.

REPORT OF THE COUNCIL FOR MAY 12, 1915.

The Council recommends that the following named physicians be elected to associate membership: Ray M. Babbitt, M.D., Huntington, W. Va., and W. W. Stevenson, M.D., Trenton, N. J.

The Council has received the application for active membership of Sara E. Stevens, M.D., West Roxbury, Mass. According to the constitution, final action will be deferred until next year.

The Council recommends that the annual meeting of this Association for 1916 be held in New Orleans, La., and that the time of the meeting be left discretionary with the President and the Committee of Arrangements, to be announced later.

Respectfully submitted,

CHARLES G. WAGNER, *Secretary*.

DR. C. B. BURR.—I move the report of the Council be approved.

Motion duly seconded and carried.

THE PRESIDENT.—The next order of business is the election of members proposed yesterday. The Secretary will read the names.

(This list is given in the report of the Council for Tuesday.)

DR. C. B. BURR.—I move the Secretary be instructed to cast the ballot of the Association for the election of the physicians named to associate membership.

Motion duly seconded and carried.

THE PRESIDENT.—The Secretary has cast the ballot as instructed, and these physicians are duly elected members of the Association.

We are now ready to resume the reading of papers. We will first hear a paper left over from yesterday, by Dr. Drew M. Wardner.

Dr. Wardner read a paper entitled "The Intra-Cranial Injection of Salvarsanized Serum."

THE PRESIDENT.—You have before you now two papers for discussion: the one just read by Dr. Wardner, and the paper read yesterday by Dr. Evans.

These papers were discussed by Drs. Burr, Swift, Thorne, Paine and Wardner.

THE PRESIDENT.—I may say that the paper submitted by Dr. Wardner last year, upon this subject, was followed up for this year at my request following a brief visit which I had made to the institution at Cedar Grove. We are certainly very glad to have this report continued, and it will be interesting to have further report of these particular cases at another time.

The next in order will be the report of the Committee on Diversional Occupation of the Insane, by Dr. A. P. Herring, Chairman.

REPORT OF THE COMMITTEE ON DIVERSIONAL OCCUPATION OF THE INSANE  
TO THE AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION, MAY, 1915.

*Mr. President and Gentlemen:* Your Committee on the Diversional Occupation of the Insane begs leave to submit a brief report of its activities, and would call special attention to the very interesting exhibit which is presented for your study.

The exhibit this year, which is the fourth one, is a very marked advance over the exhibit held at Atlantic City in 1912, with about six institutions participating. In 1913 there were 12, and in 1914 there were 14 institutions represented, while the present exhibit is represented by 34 hospitals, presenting a more practical and varied array of industries than ever before. Surely we should feel encouraged with the growing interest the members are manifesting in the work of this committee.

In the report of the committee for 1913, a map of the United States was presented, showing the number of state, private and corporate hospitals where diversional occupation was practiced. There were 68 hospitals, representing 25 states, where silver stars were given, indicating that some special effort was being made along the lines of diversional occupation. The map which we present to you this year shows only the state hospitals (county asylums, private and incorporated hospitals have been omitted). There are 80 silver stars in 27 states. This map also shows the approximate location of every state institution for the insane, criminal insane, feeble-minded, epileptic, inebriates, and the psychopathic institutes in the United States. We hope this map will prove of some interest to you, as it presents in a very striking manner the provision made by the various states in caring for their mental defectives.

The committee has created arbitrary standards regarding diversional occupation, in order to classify the hospitals into three groups. The first group, represented by a gold star, indicates that the hospital has reached a very high point in the development of occupational therapy. The requirements are:

- 1st. A director and teachers of diversional occupation.
- 2d. A nurses' course in occupation.
- 3d. That at least 50 per cent of the "unwilling workers" are occupied.
- 4th. Separate departments for diversional occupation, as well as on the wards.
- 5th. That diversional occupation is prescribed after a careful study of the patient's condition and a record kept of the results attained.
- 6th. That diversional occupation is more or less self-supporting.

The second group, represented by a silver star, indicates that the hospital has a teacher of diversional occupation; that at least 25 per cent of the "unwilling workers" are occupied, and that there is a special room or department for this work.

The third group, represented by a red star, indicates that no special effort is being made to occupy the "unwilling workers," and that diversional occupation as outlined above is not practiced.

This classification has been made as the result of answers received to the questionnaire sent out in 1913 and again in 1914. When the hospital did not answer either communication and no information could be obtained concerning the methods employed, the hospital was put in the red star class.

If the committee has been in error in regard to any hospital, it is earnestly hoped that the error will be corrected. This classification of state hospitals has been done solely with the idea of stimulating interest in the subject of diversional occupation, and with the hope that a pleasant and friendly competition will be aroused, so that every superintendent will want to see his institution indicated by a gold star.

The first institutions to be given a gold star are the Massillon State Hospital, Ohio, and the following Massachusetts hospitals: Worcester State Hospital, Boston State Hospital, Grafton State Hospital, Gardner State Colony, and Taunton State Hospital. We hope that a number of other institutions will be added to this list during the coming year.

Your committee has also prepared a symposium on diversional occupation, which we hope will be of interest and elicit a lively discussion.

We desire to thank the Program Committee for their cooperation in arranging this symposium, and especially to express our appreciation to those who have gone to so much trouble and expense in preparing an exhibit for this meeting. We hope that the efforts of the committee in presenting the unlimited possibilities of diversional occupation as a therapeutic agent in treating the insane will be the means of stimulating those who have not as yet introduced this method as a part of their hospital activities, and that it will encourage those who are familiar with its many advantages to renewed efforts and especially to study the psychology of work and play in mental diseases.

We submit the efforts of the committee for your consideration and trust that the work may not stop here, but will be continued under another committee, that will develop it along more advanced lines.

The following hospitals have taken part in the exhibit:

Manhattan State Hospital, Central Islip State Hospital, Hudson River State Hospital, Gowanda State Hospital, Middletown State Hospital, Kings Park State Hospital, *New York*; Central State Hospital, Eastern State Hospital, Southwestern State Hospital, Western State Hospital, State Colony for Epileptics, *Virginia*; Norristown State Hospital, Pennsylvania Hospital, State Homeopathic Hospital (Allentown), Danville State Hospital, Blair County Hospital, *Pennsylvania*; Stockton State Hospital, *Calif-*

*fornia*; Springfield State Hospital, Spring Grove State Hospital, Sheppard and Enoch Pratt Hospital, *Maryland*. Crownsville State Hospital's exhibit arrived too late to display.

The following Massachusetts hospitals exhibited under the auspices of the *State Board of Insanity of Massachusetts*: Worcester State Hospital, Taunton State Hospital, Northampton State Hospital, Danvers State Hospital, Westborough State Hospital, Boston State Hospital, Grafton State Hospital, Medfield State Hospital, Gardner State Colony, Monson State Hospital, Massachusetts School for Feeble-minded, Wrentham State School, McLean Hospital.

The President appointed the following committee to constitute a jury of award: Dr. Charles Ricksher, Kankakee, Ill.; Dr. F. L. Hills, Bangor, Me.; Dr. E. M. Green, Milledgeville, Ga.; Mrs. Richard F. Gundry, Catonsville, Md., and Mrs. T. J. W. Burgess, Montreal, Que. This committee awarded certificates to the following institutions:

California.—Stockton State Hospital: Fish cord table runner, linen sofa pillow.

Maryland.—Springfield State Hospital: Paper work, raffia work, raffia jardiniere. Spring Grove State Hospital: Wax flowers, cotton crocheted slippers, children's clothing, crocheted quilt, embroidery. Sheppard and Enoch Pratt Hospital: Copper ornaments, wooden toys, wood work, reed jardiniere.

Massachusetts.—Danvers State Hospital: Hammered copper, leather work. Gardner State Colony: Reed work, basket work. Worcester State Hospital: Pottery work. Grafton State Hospital: String work. Westborough State Hospital: Shirt-waist box. Boston State Hospital: Senna mat. Northampton State Hospital: Tools and tinware. Taunton State Hospital: Oil painting, hammered brass work, fiber rug. McLean Hospital: Glazed pottery, woven bed spread, loom work.

New York.—Kings Park State Hospital: Braided rag rugs, stenciling, drawing. Hudson River State Hospital: Raffia, flowers. Middletown State Hospital: Embroidery. Central Islip State Hospital: Paper work. Manhattan State Hospital: Pastel, raffia. Gowanda State Homeopathic Hospital: Melon seed work.

Pennsylvania.—State Homeopathic Hospital, Allentown: Hooked rugs, patch-work quilt, Indian rugs. Norristown State Hospital: Dressed dolls, bobin lace, colored centerpiece, fireside basket, toys. Danville State Hospital: Hand-carved celluloid, carved paper weights, braid work, tatting, water color. Blair County Hospital: Cement work, plaster work.

Virginia.—Central State Hospital: Knitted scarf, crocheting, worsted work. Western State Hospital: Best art needlework, Irish crochet. Eastern State Hospital: Doll furniture, mats, wood carving, printed screen, silk embroidery on crepe. Virginia State Colony for Epileptics: Woven



hammock, paper work. Southwestern State Hospital: Knitted bed spread, raffia table mat.

The committee desires to thank the judges for their painstaking study of the exhibit.

Respectfully submitted,

G. W. BROWN,  
C. F. HAVILAND,  
J. S. DEJARNETTE,  
W. R. DUNTON, JR.,  
A. P. HERRING, *Chairman,*  
*Committee.*

THE PRESIDENT.—You have heard the report of the Committee on Diversional Occupation—what is your pleasure in regard to it?

DR. BRUSH.—I move that the report be accepted, and the thanks of the Association extended to the committee for their very successful work.

Motion duly seconded and carried.

THE PRESIDENT.—The program calls for a symposium on "Diversional Occupation"; the first paper is by Dr. Frost, of Boston.

Dr. Henry P. Frost, of Boston, Mass., read a paper entitled "Occupation for the Insane."

THE PRESIDENT.—Discussion of Dr. Frost's paper will be postponed until afternoon.

The next paper is by Frank M. Mikels, M. D., of Morris Plains, N. J., entitled "The Therapeutic and Economic Value of Diversional Occupation," which will be read by title.

The meeting will now adjourn for the purpose of visiting the Hampton Institute. We will take up the remainder of the morning program this afternoon.

At 11.30 a. m. special cars provided by the Committee of Arrangements conveyed the members of the Association and their guests to the Normal and Agricultural Institute at Hampton, where they were given an entertainment by the officers of the Institute, in which the performers were young colored people from the student body; the return trip was made at 1.30 p. m., arriving at the hotel about 2 o'clock.

#### AFTERNOON SESSION.

THE PRESIDENT.—The Association will please come to order. The Secretary will read the report of the Council.



## REPORT OF THE COUNCIL FOR MAY 13, 1915.

The Council recommends the transfer from associate to active class of Dr. Y. H. Yarbrough, Milledgeville, Ga.

The Council recommends the election of the following named physicians to the associate class: G. G. Hankins, M. D., Williamsburg, Va.; C. B. Reitz, M. D., Allentown, Pa.; Emanuel S. Brodsky, M. D., Westport, Conn., and F. B. E. Miller, M. D., Cherokee, Ia.

The Council also makes the following recommendations: That the matter of printing, publishing and soliciting subscriptions to the History of the Association, now in preparation, be referred to Dr. Henry M. Hurd and his associates on the committee, with power.

That the incoming President be authorized to appoint a Program Committee and also a Committee of Arrangements for the next annual meeting.

That the dues for the ensuing year be fixed at the usual rates, viz.: Five dollars for active members, and two dollars for associate members.

Respectfully submitted,

CHARLES G. WAGNER, *Secretary*.

THE PRESIDENT.—You have heard the report of the Council—what are your wishes?

DR. WM. A. WHITE.—I move the report of the Council be received and adopted.

Motion duly seconded and carried.

THE PRESIDENT.—I will call for the report of the Committee on Immigration, Dr. Brush, Chairman.

*Mr. President and Members of the Association:* The Immigration Bill (No. 6060) came to a vote in Congress in January, 1915, and received a very large majority in each House. The bill, as it finally passed the House, contained all the amendments recommended by this Association, and we believe that its enactment would have provided an adequate defense against the admission of insane or mentally defective immigrants, at the same time providing much more effectively for the return of the alien insane from our public institutions. The principal provisions of the bill were:

1. Providing that the medical officers of the United States Public Health Service who have had special training in the diagnosis of insanity and mental deficiency shall be detailed for duty at ports of entry designated by the Secretary of Labor, and that the services of interpreters and suitable facilities for making mental examinations and observing cases shall be provided for these medical officers.

2. Providing that the surgeon of each vessel shall make a mental examination of each immigrant before accepting him for passage. (A physical examination only is required at present.)

3. Providing a fine of \$200 for bringing to this country any insane or mentally defective person whose condition could have been detected by a competent medical examination at the time of embarkation.

4. Adding constitutional psychopathic inferiority and chronic alcoholism to the excludable causes.

5. Making it mandatory for the Secretary of Labor to provide suitable attendants for immigrants being deported, when they require personal care on account of mental or physical disability.

6. Increasing from three to five years the period in which deportation of aliens who have become a public charge in this country can be effected—unless it can be affirmatively shown that their dependence is due to causes arising subsequent to landing.

7. Providing that deportation can be effected subsequently if proceedings are *instituted* within five years.

President Wilson gave a public hearing before passing upon the bill, at which two or three members of this committee and the chairman represented the American Medico-Psychological Association. A number of other national organizations especially interested in mental diseases and mental deficiency united with the representatives of this Association in selecting Dr. Stewart Paton as spokesman. Dr. Paton presented the views of those whom he represented very convincingly, and no subsequent speaker undertook to take issue with him.

The bill was vetoed by President Wilson, his veto message dealing wholly with the clause providing for a literacy test and that which denied admission to persons fleeing from punishment for certain political offenses. He took occasion later to warmly praise the amendments in which we are especially interested.

An attempt was made in Congress to pass the bill over the President's veto, but without success.

A similar bill will be introduced as soon as Congress assembles in December, and it will be necessary for all those interested to insist again that the amendments to which we are committed are included. Therefore, it is very desirable that a Committee upon Immigration be continued and be authorized to continue efforts to secure the legislation which this Association advocates.

THE PRESIDENT.—You have heard the report of the Committee on Immigration—what is your pleasure?

DR. WM. A. WHITE.—I move that the report be received and approved, and the committee continued.

DR. BRUSH.—Mr. President, in regard to Dr. White's last words, "and the committee continued," I do not quite like to be the "Pooh Bah" of this Association; I am the President-elect, the editor of the JOURNAL OF INSANITY, and I think I might be excused from the chairmanship of this committee.

THE PRESIDENT.—You have heard the motion of Dr. White. All in favor, please say aye; opposed, no. The ayes have it, and the motion is carried.

DR. WAGNER.—Mrs. Drewry desires me to announce on behalf of the ladies, that a card party has been arranged for this evening for the ladies; the place and time will be announced later.

THE PRESIDENT.—I see that Dr. Stearns is in the room, and as he is on the program for a paper this afternoon, I will ask him to read his paper now, before concluding the symposium on "Diversional Occupation."

Dr. A. Warren Stearns, of Boston, Mass., then read a paper entitled "A Survey of 'Defective Delinquents' Under the Care of the Massachusetts State Board of Insanity." Discussed by Drs. Houston, Bernstein, Hurd and Stearns in closing.

THE PRESIDENT.—We will now return to the symposium on "Diversional Occupation" opened this morning. The first speaker will be Dr. C. Floyd Haviland, of Kings Park, N. Y.

The following topics were presented:

"What Are the Advantages of an Occupation Schedule?" by C. Floyd Haviland, M. D., Kings Park, N. Y.

"Should Patients be Rewarded for Industrial Occupation?" by Charles E. Thompson, M. D., Gardner, Mass.

"Is an Occupation Teacher Desirable?" by Henry I. Klopp, M. D., Allentown, Pa.

"Should Occupation be Limited to Work-rooms, or Distributed About the Wards?" by Horace G. Ripley, M. D., Taunton, Mass.

"Should There be a Definite Recreation Schedule?" by Wm. Rush Dunton, M. D., Towson, Md.

These topics were discussed by Drs. McKinniss, Dewey, Bancroft, Sommer, Tuttle, Herring and Dunton.

THE PRESIDENT.—The next paper on the program is by Dr. Henry J. Berkley.

DR. BRUSH.—Dr. Berkley is unable to be present. He asked me to express his regret, and desired that his paper, which he has placed in my hands, be read by title.

"The Psychoses of the High-Imbecile," by Henry J. Berkley, M. D., Baltimore, Md., was read by title.

THE PRESIDENT.—Dr. L. Pierce Clark is also absent, and his paper, "Outlines of a State Policy for Dealing with Mental Deficiency," will be read by title also.

We have no program for this evening, but we will assemble promptly at 10 o'clock to-morrow morning for the closing session. If there is nothing further to come up this afternoon we will consider ourselves adjourned until to-morrow morning.

FRIDAY, MAY 14, 1915, 10 A. M.

THE PRESIDENT.—The Association will please come to order. The first order of business will be the election of members as proposed by the Council yesterday.

DR. HENRY M. HURD.—I move the Secretary be instructed to cast the ballot of the Association for the transfer from associate to active membership and election of new members as recommended by the Council.

Motion duly seconded and carried.

(This list is given in the reports of the Council for Wednesday and Thursday.)

THE PRESIDENT.—Is there a report from the Committee on Statistics? Dr. Salmon is unavoidably detained, and if there is no report the committee will be continued.

I am informed that Dr. Williams, of Washington, is unable to be present, therefore his paper entitled, "The Results of Psychoanalysis of a Case of Involution Melancholia," is read by title.

Is Dr. Alfred Gordon, of Philadelphia, present? If not, his paper on "Psychoses, Psychoneuroses and Mental Deficiency in 6000 Cases Considered Especially from the Standpoints of Sex and Etiological Incidents," will also be read by title.

We will now listen to Dr. Rosanoff's paper.

The following papers were read:

"Some Neglected Phases of Immigration in Relation to Insanity," by A. J. Rosanoff, M. D., Kings Park, N. Y. Discussed by Drs. Hill, Swift, Mullan and Rosanoff in closing.

"Observations on the Voice in Tabes—A Voice Sign," by Walter B. Swift, M. D., Boston, Mass.

THE PRESIDENT.—This concludes our program.

DR. BRUSH.—We have had three or four papers which have been read by title, and I understand that two or three of these gentlemen have made no excuse for their non-attendance. It seems to me it is not quite the thing for members to send on titles to papers and get a place on the program without taking any pains to present their papers or to send their papers for some one else to read, or to make any excuse for their non-appearance at the meeting. It seems to me that papers of that type should be excluded from the TRANSACTIONS, and that in future notice to that effect be sent to those who desire a place on the program, and then if they do not appear or send an excuse for their non-appearance, after having asked for a place on the program, that their papers do not appear in the TRANSACTIONS. I am willing to offer a resolution to that effect.

DR. BURGESS.—I strongly support Dr. Brush's motion.



DR. C. B. BURR.—I would move that the precedent heretofore established be followed in the present instance, but that the whole question be referred to the Council for recommendation and report at the next meeting.

DR. BRUSH.—I withdraw my motion and accept the amendment.

THE PRESIDENT.—The first motion has been withdrawn, and Dr. Burr's motion substituted. Those in favor of referring the whole matter to the Council please say aye; opposed, no.

Motion is carried and it is so ordered.

THE PRESIDENT.—It is in order now to receive the report of the Committee on Resolutions.

DR. R. W. BRUCE SMITH.—At the request of Dr. Arthur W. Hurd, chairman of the committee, who was obliged to leave this morning, I beg to present the report of the committee.

The Committee on Resolutions offers the following:

WHEREAS, The Committee of Arrangements of this meeting of the Association has made so efficient, admirable and painstaking efforts for its welfare; such good provision for the scientific sessions, and such a hospitable and interesting program for the entertainment of the members, their families and guests, as to make this meeting at this beautiful place a memorable and delightful one;

*Resolved*, That the thanks of this Association be most sincerely tendered to Dr. Drewry and his committee associates, to the General Board of Hospital Directors of Virginia, to the Hon. Douglas Southall Freeman, to the Hampton Institute, to the Army and Navy, and to the citizens of this community; to Mrs. Burgess, of Montreal, and Mrs. Richard F. Gundry, of Catonsville, Md., for kindly assistance in judging the exhibits illustrating diversified occupations; to the management of the Hotel Chamberlin for their kind efforts in our behalf, sustaining in full measure the old reputation for hospitality of the State of Virginia.

ARTHUR W. HURD,  
R. W. BRUCE SMITH,  
W. P. CRUMBACKER,

*Committee on Resolutions.*

THE PRESIDENT.—You have heard the resolutions—what will you do with them?

DR. C. B. BURR.—I move their adoption by a rising vote.

Motion duly seconded and unanimously carried by a rising vote.



THE PRESIDENT.—I desire to inquire whether the Committee on Awards has any report to make to the Association? I presume no formal report is necessary, so we will pass on.

I know of no further business to come before the Association other than the induction of the President-elect into office.

Before presenting the President-elect, I take this occasion to say a word of farewell.

*Members of the Association:* Our work for this session has been completed and the hour of parting is now here. I regret that words fail me to express my gratitude to you for the honor you have bestowed upon me in permitting me to preside over your deliberations during this meeting. I repeat, I esteem it the highest honor which ever came to me, and I can aspire to no greater distinction. I thank you from the bottom of my heart. I am grateful, too, for your patience and assistance and consideration in my efforts, feeble at best—none knows better than I, to discharge the duties of this honorable position. Please forget my blunders.

For the success of this meeting credit is largely due to the efficient Secretary, Dr. Wagner, and the splendid Committee of Arrangements. To Dr. Wagner I am personally indebted beyond all expression. It has afforded me joyous satisfaction to see you honor him by election to the office of Vice-President. His work will always do credit to this Association and to himself.

The Committee of Arrangements contributed so much to the meeting that I would appear ungrateful if I did not give it special mention. To Dr. Drewry and his associates, I take off my hat, and to Mrs. Drewry, Mrs. Brown, Mrs. Bohannon, Mrs. Osborne, Mrs. West and others, I make my bow.

I now vacate the chair to make room for one who is so well known to you and all workers in the common cause that any introduction by me is both superfluous and incongruous. It is a coincidence that he and I became members of the Association at the same time, 24 years ago. He has borne his share in all the activities of the Association, as one of the editors of the JOURNAL OF INSANITY and member of most of the committees having any hard work to do, and member on the floor. He has done all his work well, and the Association honors itself in honoring him. It is a pleasure to vacate this honorable position to a good friend so faithful and able, and so fittingly deserving of your preference.

Dr. Brush, I welcome you as the President of the American Medico-Psychological Association for the coming year, and now transfer to your hands the gavel of authority which carries with it a high honor and proof of the esteem in which you are held by this Association. You will, I am assured, preserve the dignity of the office and add grace and efficiency to the manner of discharging its duties. I welcome you and congratulate you as friend, coworker, gentleman and scholar, deserving of this distinguished honor, and I bespeak for you a splendid administration.

Members of the Association, your President, Dr. Edward N. Brush, of Maryland. [Applause.]

DR. BRUSH.—*Dr. Smith, and Members of the Association:* I very much regret that I have not any formal speech prepared; that I have not even sent to the Secretary an abstract that will appear on the program. I accept this emblem of office, promising you that if, perhaps, in the past I have occasionally been a little too much of a “knocker,” I shall not use it for that purpose in the future.

No one, I think, can stand where I stand to-day without appreciating that he has had conferred upon him one of the highest honors which can come to the professional man in this country; to be the President of the oldest national and, in fact, international, medical association on the Western Continent is no small honor; to be President of a body engaged in the work we are engaged in and composed of such members as we fortunately have in our Association, is a very great honor, and I thank you most heartily that you have conferred it upon me.

I cannot on this occasion let the opportunity pass to call your attention to the extreme modesty of my predecessor. We all agree with him in giving very great credit, as we have done on numerous occasions, to the efficient Secretary, for the success of our meeting; but I know of no occasion on which it could have been more fittingly said of any man who has taken his place in the presidential chair that the success of the meeting was due in such large measure to the manner in which the sessions have been conducted by the retiring President, and I think we all unite in regretting the fact that we are losing Dr. Smith as the President of the Association. I am glad to say, however, that a precedent has been established this year by which the retiring President remains a member of the Council for three years, to add his advice as the result of accumulated experience to the proceedings of that body, and we shall all depend very largely upon you, Dr. Smith, for your advice.

DR. BURR.—I want to propose a vote of thanks to the retiring officers: The President, the Secretary, and I should like to include also the Program Committee; we certainly owe a great deal to the officers for the excellence of this program, and the augmentation of the membership of the Association. I would like to propose a hearty resolution of thanks to the retiring officers, and would ask that this be given by a rising vote.

DR. SMITH.—I would like to add another name to the list referred to by Dr. Burr, viz., that of Miss Margaret M. Bloxham, the efficient stenographer, who has, with painstaking care and accuracy, reported the proceedings of this Association for several years past, and to express my appreciation of the great service she has rendered.

DR. BRUSH.—I second that motion, and wish to say that, as editor of the JOURNAL, I perhaps appreciate better than anybody else the extent of the service Miss Bloxham has rendered in promptly and accurately transcribing the proceedings for publication in the JOURNAL.

DR. BURR.—I accept the amendment, and only regret that I failed to mention the name of Miss Bloxham in the original motion.

Motion carried by a rising vote.

DR. BRUSH.—Is there any further business to bring before the Association? If not, a motion to adjourn is in order.

DR. BURR.—I move that we adjourn.

DR. BRUSH.—It has been moved that we adjourn. I therefore declare this Seventy-first Annual Meeting of the Association adjourned to meet in New Orleans, La., next year, at a time to be named by the President.

CHARLES G. WAGNER, *Secretary*.



## PRESIDENTIAL ADDRESS.

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### ON THE RELATION OF PSYCHIATRY TO THE STATE.

BY SAMUEL E. SMITH, M. D., RICHMOND, IND.

Society has in recent years manifested a sound and stimulating interest in the progress of psychiatry. We have begun to see the fruits of this attention in the crystallization of some of its knowledge in legislation—much of it enlightened and beneficial in its results. Psychiatry, to meet the demands of an awakened public conscience for additional truth, is broadening the field of its inquiries. We, on our part, have devoted much time and study to the care of the insane, and have accomplished much in the planning, construction and equipment of institutions for better housing, classification and treatment. For this purpose and under our advice and direction society, through its various units of government, has applied millions and millions of dollars for construction, and for upkeep, maintenance and treatment vast sums are annually expended, making it the largest, costliest, and best directed charity the world has ever known.

The history of this Association is the history of this charity in America. It has guided it by slow stages from mere custodial care, through the infirmary and asylum, to the modern day hospital, with its splendid household and medical equipment, its laboratories, diversions, occupations, re-educational and training schools, colonization, voluntary commitment, after-care, and anything and everything facilitating diagnosis and treatment with a view to the amelioration of the distress of mental disease and restoration to health, home and society. This work has been well done and its accomplishment is a story of lifetime devotion and labor of love by a long list of distinguished members, living and dead, of this Association. This development, familiar to every



member present, has not been devoid of interruptions, delays, disappointments and discouragements by political interference, depleted treasuries, narrow and short-sighted policies, top-heavy officialdom and the like, and yet throughout its course it has maintained, and to-day enjoys, a high degree of public confidence.

To the educational efforts of the superintendents of the hospitals more than to any other single agency is credit due for the system of state care. In season and out they have pressed upon the attention of the public and the constituted authority, the wisdom, humanity and value of the early admission of new cases to the hospitals and the duty of the state to provide necessary accommodations for their care and treatment by the establishment of new institutions and the enlargement of the old. Not infrequently have their activities extorted from unwilling states and their doubting legislative bodies necessary funds with which to carry forward their plans for improvements, new construction and maintenance, and yet in the end, however grudgingly these appropriations may have been given, usually, if not always, their application has received public approval and applause. While state care is not complete, except possibly in New York, Delaware and Virginia, it approximates it in most of the states, and the results justify beyond all question the value of the system over the earlier, meager and incomplete methods of care under smaller divisions of government, niggardly administered by commissions, selectmen, trustees and overseers of the poor, from whom the authority was wrested only after a struggle covering many years and led by the superintendents of the hospitals. While the development is a source of gratification, the work is far from finished.

We have preached the doctrine of segregation for nearly a century and the state has in large measure heeded us. Institutions have been multiplied and enlarged to mammoth proportions to meet our demand for state care, and are yet insufficient. Whether the increase of the mentally diseased is real or apparent, the fact remains that the number of so-called insane is larger to-day than history has ever recorded. The burden of care has become enormously heavy and so great in some states as to constitute the largest item of public expenditure. Concretely and approximately, in every group of 300 citizens there is one mentally diseased person whose domicile under public care would cost \$1000, and whose

care and treatment would demand an outlay of \$200 annually for ten years. Complete segregation will require a permanent investment of \$300,000,000, and for custody, care and treatment \$600,000,000 more in ten years. Small wonder that an enlightened public is asking on every side from the Senate chamber to the boys' club the pertinent question, Why? And this question must be answered. An intelligent philanthropy demands knowledge. On faith alone it cannot and will not carry this mighty burden. The spirit of altruism is beautiful and helpful in some degree, however applied, but is not permanently beneficial unless founded on scientific knowledge. Herein lies the responsibility of this Association, and from its members must come this information. In our wards and laboratories must be worked out the problems of ætiology with scientific accuracy before substantial progress can be made in prevention.

Never in the history of this Association was the responsibility resting upon it and its individual members so great as it is to-day. If, after the ceaseless effort of 71 years, state care may be regarded as successfully and permanently established, even if not quite complete and perfect, we of this Association find ourselves possessed of a reasonable degree of public confidence, it means something. Public confidence in this instance spells faith and responsibility. Faith is in us for the lessons we have learned and taught to others—a faith justified by works—for things done for the insane and for the state in the great service in care and treatment. Responsibility rests upon us for the guidance of an awakened public, better informed and more intelligent than ever before, in the difficult field of prevention. The layman's point of view is not only changed, but it is broadened by elevation; he now looks over and behind hillocks which were formerly barriers and down into valleys hitherto bottomless. When he wants to know, the time is come when he should know.

During the past ten years the subject of prevention has held an important place in our program. The futility of segregation of the so-called insane as a means of prevention, while the feeble-minded and epileptic remain at large, has long been apparent. Humanitarian motives originally and mainly have prompted and justified the segregation of the insane for treatment and custody and led, by reason of the immensity of the cost, into our system of

state care. It was not established and developed as an eugenic movement, although we are coming more and more to appreciate its eugenic value. Latterly more importance has been attached to it as a factor in prevention, and yet it must be admitted that this element is negligible as compared with the value of segregation of the feeble-minded and epileptic, since more than 50 per cent of the women in our hospitals are beyond the child-bearing period and the incidence of insanity increases with advancing years.

Insanity, so-called, has been properly termed an end-product. The processes may be long or short and include one, two or more generations, and based upon a syphilitic infection, an alcoholic degeneration, trauma, an auto-intoxication, or whatnot, yet whatever it may be must be determined and given publicity. Humanity demands, and duty agrees, that no effort must be relaxed and no means omitted to relieve the distress of the end-products, yet another duty urges recognition and control of the morbid processes which threaten an overwhelming sub-normal output.

Psychiatry, then, has a two-fold relation to the state. On the one hand it is the treatment and control of the so-called insane, which is generally accepted and practiced. The other aspect is the guidance of the state into practical methods of prevention. The latter depends upon the former. We may go on to the end of time treating and caring for the mentally diseased and may return a goodly number to their homes and former walks of life, and yet in the end the results are temporary only unless, in the methods of treatment and care, we go back and beyond into the realm of causation and by a scientific analysis of all our cases demonstrate the morbid elements responsible for so much sub-normal product. In the study of this complex problem, progress is necessarily slow, yet some advance is being made and some important facts have been gathered.

Without entering upon any extended discussion of the complex subject of causation, it is pertinent here to make brief reference to it. As our investigations have advanced during the past 10 or 15 years, the accepted causes of mental disease have been numerically reduced. Not forgetful of, but omitting for the sake of brevity, the acute infections, and the auto-intoxications resulting from disordered metabolism, we are forced to admit that the chief factors in the production of mental disorders are, in the order of

their importance, *heredity, syphilis, alcoholism and other drug habits*. While granting that the term heredity is more convenient than exact, it is generally accepted to mean the transmission of a defective organism from one generation to another. And in the light of the results of recent investigations and the trend of scientific opinion, the elements influential in originally modifying the organism are syphilis and alcoholism, and less frequently other drug habits. As our tests for syphilis become more precise, the number of mental defectives showing positive reactions to them has steadily increased, and it seems now probable that transmitted syphilis produces as many mental defectives as direct infection. Unfortunately we have no corresponding test for alcoholism and other drug habits, but the study of the family history and clinical observation furnishes sufficient ground for assigning alcoholism as the direct cause of many cases of epilepsy, feeble-mindedness, dementia præcox, neurasthenia, psychasthenia and other mental disorders attributable to a defective organism. If, then, syphilis and alcoholism or other drug habits are shown to play such important parts in heredity, their value as causative agents of mental defectiveness is enormously increased. This view of causation does not by any means make clear the origin of all mental defectives, but it certainly includes the majority of them and furnishes abundant suggestions for prevention.

The responsibility of this membership does not end with its hospital and laboratory work and the knowledge of causation it may gather there. Unless there is found a practical application of this knowledge, it is useless in prevention, and therefore its wise dissemination into those channels which may best reach and impress the public mind becomes an important function. If the state is to be guided with the same care and safety into the field of prevention as it has been into that of treatment and management, cautious advice is necessary.

This is a period of law making. Advanced but immature thought finds its way quickly into the statute books of the land. Good causes are often embarrassed and hindered, and humanitarian effort is not infrequently limited by unwise and impractical legislation. The subject of prevention of the mental defective has not wholly escaped.



The eugenic laws suggested for recent enactment in several states furnish an example of such premature legislation which must prove more harmful than helpful. The dignified science of eugenics has been degraded into a public plaything and made the unfortunate object of the cheap wit of the stage and public press, for the reason that its principles have not been sufficiently worked out to furnish a sound foundation for a legal superstructure. Indeed, there is no assurance that its principles, whenever they are known and proven, can ever be applied by the law to improve the efficiency of the race. The statutory requirements of even a clean bill of health for a marriage license fails, notwithstanding it aims to prevent infection, direct and indirect, from syphilis and tuberculosis—diseases recognized and admitted by every thinking man and woman in the land as contributing enormously to human misery and incompetence. This law has never proven successful in any state, because thorough medical examination, a *sine qua non*, is difficult and costly, and medical certificates are obtainable from unskilled and incompetent medical men for small fees based upon imperfect examination which defeat the very purpose of the law. Moreover, as has been repeatedly pointed out by Dr. White and others, it is a reasonable expectation that common-law marriages and illegitimate sexual relations must follow any legal effort to restrict marriage. It seems apparent, also, that the elimination in any degree of the human element from the marriage contract must decrease legal marriages and the birth rate, and diminish the importance of the family, the very source of our social strength. Discouraged thus in the application by law of the simple rules of prevention of infectious disease through sexual contact, little may be expected from legal assistance in the practical observation of the higher and more complex principles of the science of eugenics. Only careful medical and social observation, genetic experimentation and biologic investigation through a long period of time can develop the knowledge on which to base safe rules of human conduct in the laudable effort of race improvement. It is a subject worthy of the most careful consideration and every encouragement and assistance which psychiatry can accord it, and the cause cannot be better served than by judicious discouragement of premature legislation which belittles and hinders, rather than



stimulates, progress in a worthy cause. No theoretical standards of eugenics can be successfully forced on any community, and no standard of one community can be forced on another differently organized.

Legalized sterilization, promising and valuable as it is, has made little progress as a means of prevention, because it is too far in advance of popular opinion. In my own state of Indiana, where in 1907 legal recognition was first given it, the purpose of the law is "to prevent procreation of confirmed criminals, idiots, imbeciles and rapists," and is applicable in "pronounced unimprovable cases" only; it has not advanced in public favor as rapidly as was expected. Even after eight years it must be applied with discretion and caution, because, lacking in popular support, the threat and danger of raising the question of constitutionality, a test it can never endure, eternally hangs over it. Paradoxical as it is, the very enactment of the law has stopped in a manner the campaign of education in favor of its underlying principle, because, having secured the law, continued discussion with doubtful support and lack of appreciation of its purpose and value endangers it. The law, therefore, has been limited in its application. An obstacle to the practical application of this and some other legal measures looking to the prevention of mental and physical inefficiency lies in the fact that demonstrable benefits are secured only after an experience of two or three generations and cannot, therefore, be brought to their support, except by some analogy, and this fact emphasizes the contention that in matters of statutory prevention an awakened public conscience is a prerequisite. These observations upon legalized sterilization must not be construed as inimical to the Indiana law, because the writer believes in it, supported the measure in its enactment, and has continued to do so to the present day; but the view in retrospect suggests that more rapid progress would have been made by a longer period of education before invoking statutory aid.

It thus appears that the exercise of a wise influence against premature legislation in methods of prevention is not the least of our duties. A pleasing and convenient method of disposing of suggestions for prevention and kindred subjects by large organizations such as this is to accept them in the form of resolutions

recommending legislation and pass them with brief discussion and little consideration of their practical application. They are then used with the stamp of authority by lawmakers, too often seeking personal notoriety rather than the good of the cause, for legal enactments which prove impractical and ineffective and bring the law and the cause into ill repute.

The field of opportunity in prevention is broad and inviting, and consists not in experimental law making, but rather in the dissemination of the scientific knowledge gathered from our wards and laboratories, through well-chosen and sane channels of social service, to the family and individual. The present awakening of the public to the mighty problem of the mental defective is wholesome and affords unusual opportunity to the teacher and psychiatrist ready with lessons in prevention. These lessons must be founded upon our present knowledge of ætiology and explicitly demonstrate the certain penalties of syphilis, alcoholism and other drug habits, and their hereditary influences, and must include the control of the large groups of defective organisms—the feeble-minded, the epileptic and delinquent.

It is unquestionably the consensus of opinion that the complete and permanent segregation of the feeble-minded promises the highest and most far-reaching results in prevention and would go far towards solving this stupendous problem; yet it is also apparent that the great cost of such segregation stands as a bar to its full application. Accepting published statistical reports, there are more feeble-minded than insane persons in the country, with only 50,000 segregated in public institutions, jails, almshouses and penal establishments. Or, in other words, the complete segregation of the feeble-minded would at least involve a duplication in capacity of all the hospitals for insane in the land—a consummation entirely beyond our resources under the present fallacious financial policy of most of our states. In all other forward movements requiring large expenditure of public funds for permanent improvements the state, by bonding, distributes the burden of cost over the two or three generations benefited by the undertaking. In the care and treatment of its defectives the state strangely makes an exception to this policy and places the burden of cost, both for permanent improvements and maintenance, upon the present gen-

eration. If such exception could be eliminated, segregation could be extended to many more and the cause of prevention much advanced. It is worthy of consideration and effort in the more populous commonwealths.

In the establishment of new institutions for the insane or feeble-minded under the state-care system, it seems inevitable that cost will be a more important factor in the future than it has been in the past. The trend of approval unquestionably is in the direction of higher and better equipment of existing institutions and their enlargement by colonization, rather than by duplication of institutions. This plan has much to commend it. It reduces the per capita cost of original construction, provides in the parent institution the scientific equipment needful for the study and care of those requiring special treatment, nursing and re-education, and the colonies with simple and inexpensive construction and equipment, located at varying distances from the central plant, afford large opportunity for the employment of custodial cases in such a manner as to contribute something to the cost of their maintenance. This plan is being applied successfully in several of the states and is growing in popularity. It will doubtless result in the segregation of a much larger number of defectives at a relatively smaller expenditure of public funds.

While encouragement may properly and safely be given the establishment of special institutions for the segregation of the feeble-minded, as far as means may permit, it is apparent all can never be removed from society and that the problem must be approached from some other angle. That angle, as it now appears, is the stimulation of public interest by bringing to the attention of the great middle classes of our people the gathered facts bearing directly upon this question. The middle classes include all between the extremes—from thinking and reading laboring men and women to and including the professions—and these constitute the great moving force of our development. If this strong group can be brought to a fine appreciation and consistent support of the movement now being inaugurated throughout the land for the thorough medical examination of the school children and the treatment and training of the large group of sub-normals amenable to such management, the certain penalty of procreation by them

and the value of sterilization as a means of prevention, something positive will be accomplished. This support is obtainable, if sought, and there is no higher duty resting upon us as members of this Association than to seek it.

A prolific source of increase of insane and feeble-minded cases lies in that large group discharged annually from our institutions as recovered and improved, and its control confessedly furnishes a difficult and complex problem. This group includes necessarily many cases of manic-depressive psychosis, recurrent in character, and a still larger number of cases of dementia præcox adjusted to lower mental levels. For obvious reasons these cases cannot be retained indefinitely in our institutions and are returned to their homes or set at large to enjoy under present conditions the full rights of citizenship, which means too often the reproduction of their kind. To this group may be added, also, the sub-normal children taken from the public schools and given special training, as the result of medical inspection and supervision, and their number will increase enormously as these inspections become more rigid. True, it is the laudable purpose to train them in special schools and fit them in some degree for lives of usefulness, but in thus avoiding segregation they are, although no better fitted, helped towards parenthood with its mischievous consequences. While public opinion against marriages in these groups will accomplish something, the only positive preventive measure for this menace is sterilization. It may be a long way in the future, because it must wait popular approval, but towards it the campaign of education must be directed.

Nevertheless it is our duty to encourage the system of medical examination of school children by experts specially trained for the purpose, with a view to removing sub-normal children from the schools and treating and training them in the manual training schools under special teachers and medical officers collaborating. A movement should be encouraged to provide, wherever numbers justify them, clearing houses for mental defectives upon the general lines of that recently established by the Commissioner of Charities in New York and under the very efficient management of Dr. Max C. Schlapp. This work is broad and efficient and commends itself.



The out-door work of Dr. W. E. Fernald in connection with the Massachusetts School for the Feeble-Minded and other similar institutions is commendable and effective and should be applied wherever possible.

The establishment of societies and committees for medical hygiene, psychiatric societies, eugenic societies and the like deserve the encouragement of this Association. Such organizations are now actively at work in a few states. They are in a fair way to accomplish much good, and should be established elsewhere. We can contribute nothing better to the great cause of prevention at this time than by the promotion in every state of the union of state-wide societies, affiliated or not with national organizations, of mental hygiene and the like, to include both laymen and medical men, to whom and through whom a better understanding of the nature of mental disease and its preventableness may be taught.

The National and State Conferences of Charities and Correction afford unusual opportunities for the dissemination of knowledge on prevention. This national organization has for many years dealt influentially and helpfully "with the problem of charitable institutions supported by taxation and caring for adults and children who by reason of infirmity or misconduct are for the time being wards of the state." Its membership is limited only to those interested in charity and correction, and two or three sessions of its annual meetings are devoted to the insane, feeble-minded and epileptic, under the chairmanship usually of a superintendent of a state benevolent institution. Its active membership includes the best known social workers in America and its audiences are probably the largest and most influential of any of the national organizations that seek the uplift of humanity. While it is interested alike with us in the all-important subject of prevention, it is apparent that our membership has not, especially in recent years, availed itself of this unusual field for the presentation of its observation and conclusions. A more active participation in its deliberations by this membership would certainly give a more scientific foundation for the doctrines it so widely and effectively promulgates.

And coming closer home, there is no field so rich for the implantation of the seed of prevention, as the local community of



every institution, state or private, represented in this Association. All may readily become centers of activity in social service and through local clubs and societies reach the family and individual without misdirection. The peculiar relationship of the institution to the local community gives any expression emanating from it a stamp of authority which is invaluable in this cause. It is admitted that the medical staff is usually burdened with its multiplicity of duties, but ample time should be found, even if it is necessary to add an additional medical officer to the staff for the purpose. No better investment could be made by the state.

The development of after-care directly by the institution or through independent local organizations would stimulate interest where little now exists.

The establishment of a weekly or monthly public dispensary service in connection with each hospital would make it possible for incipient cases of mental disease to receive expert advice and treatment, and is worthy of trial and encouragement. Many such cases would be saved from serious mental upset and commitment, and such a dispensary service in conjunction with the institution's social service and after-care organizations could manage and treat many mental cases at home, even for long periods of time, with satisfactory results. The effect of such treatment and supervision is broader than the benefits accruing to the case itself, because the advice and instruction would reach the entire neurotic family and the immediate neighbors.

Intimate touch with the public might be effected by a thorough survey by each institution for the insane, feeble-minded and epileptics of all the territory tributary to it; and this would also yield valuable information concerning consanguinity, social habits and conditions, and other factors of causation which would suggest corrective and preventive measures.

The local medical societies lend themselves readily to these movements and bring into them men and women of scientific training whose assistance and services are invaluable to the cause. In the end, whatever of substantial progress is made along the lines of prevention of mental or other disease is the result of the primary activities of the medical profession, and without its intelligent and sympathetic support little can be accomplished.

In the education of the people in the direction of prevention, there is need of capable leadership even more efficient and influential than that which made possible the state care system, because it touches the family and the individual and must modify customs heretofore held privileged and sacred. The activities, therefore, of this membership, to be effective, must be of a kind to beget the greatest public confidence.

There is good ground for the belief that many heads of public institutions have in the past limited their influence and lost something in the public estimate by confining their public activities to expert testimony and medico-legal cases, and have thereby encouraged the growing impression that their expert medical opinion and advice on all public questions is based upon a monetary consideration. An ethical question, debatable of course, can be raised in this connection. If not now, the prediction is safe that the day is not distant when the medical superintendents of the public hospitals will regard it as their duty to decline to appear as experts in court except as members of an impartial commission to determine the question of mental disease and responsibility, appointed by some legally constituted authority. It is questionable whether a medical officer can ever appear as a partisan expert witness without jeopardizing in some degree the interests of his institution, his personal and professional dignity, and his influence as a medical adviser to the public. There can be no higher mission of such an officer than to carry directly to the people his expert knowledge of mental disease and its prevention.

Aloofness has been charged directly or by implication against this Association by some other medical societies, but this criticism, based doubtlessly upon an imperfect conception of its work, is disappearing and may be entirely removed by cooperation in this common cause of humanity in which every worthy member of the profession is vitally interested.

The growing importance of psychiatry in the curricula of the medical schools testifies to an awakened interest in a subject hitherto regarded as obscure and cheerless, if not speculative and intangible, and encourages the belief that it is becoming more generally recognized as "a large and important chapter of inner medicine," and is "likely to prove a formidable rival of all the other medical specialties for the affection of the better young men

now entering upon medical careers" (Barker). These facts are indeed encouraging, but it will be remembered that the great army of strong and influential medical men active now in the practice of the profession and useful to us in the campaign of prevention have had little or no training in psychiatry and must be enlisted in the cause on the broad ground of general prophylaxis. On proper appeal, however, this can be done. And furthermore, a closer relationship with the general profession will, through cooperation, lead to the establishment of more psychiatric institutes and clinics in the populous centers and thereby stimulate activity in the field of research and treatment. Psychiatry is so broad in its scope and its problems are so enormous that it welcomes the student of all the allied and subsidiary sciences. In the view of Dr. L. F. Barker, "no single investigator, of course, can hope to be active in all parts of this large and varied field of inquiry. Not even the collective activities of the members of a single psychiatric clinic can cultivate more than a small portion of the field. The work is cut out for the aggregate of the world's psychiatrists for at least many generations ahead."

The enlistment of the medical profession in these activities brings into the cause the most potent and influential of all the factors of prevention—the family physician—the one person who has the first and the last word in shaping the destinies of the race, the one who dares walk "where angels fear to tread"; the one person who ventures within the sacred precincts of the hearthstone, or at the steps of the holy altar makes bold to say, "Thou shalt not." Arm him with the facts being gathered to-day in the wards, the laboratories and such meetings as this, and the battle is half won.

Other avenues of approach and other influences might be mentioned, but those enumerated suffice for present purposes. Through these the dangers of an overwhelming increase of the mental defective can be demonstrated, the public conscience can be reached and aroused to the necessity of observing a few fixed rules looking to the conservation of human efficiency. Then and not till then may we look with reasonable expectation for any practical results from legal enactment upon sterilization, restricted marriages, higher eugenics, and complete segregation of the feeble-minded.

## IMMIGRATION.

The subject of immigration has assumed additional importance and is rendered somewhat more complex by reason of the present European war. While practically suspended now, resumption is expected after the cessation of hostilities. There seems to be a divergence of opinion among public men of the effect the war will have upon future movements of population to this country. On the one hand it is claimed that it cannot in many years, if ever, attain such proportions as prior to this conflict, when, for example, 1,218,480 immigrants were admitted during the year ending June 30, 1914. This assumption is based upon the statement that the war will be exhaustive to the participating powers as well as to their neighbors, and that with a diminished national population abundant employment will be found at home for both men and women able to do any kind of work in the rebuilding and operation of neglected and damaged industries, internal improvements, and national defenses; and that, if history repeats itself, such a costly war will be followed by an era of unusual industrial prosperity in all the affected countries, making emigration unnecessary and undesirable.

On the other hand, the opinion is held that the heavy burden of taxation, raised to the very limit to repair as soon as possible the extraordinary national losses sustained by this conflict, will markedly increase the drift to this country. In this exodus, it is predicted that many weak, defective and dependent persons will be encouraged to join, because public relief at home will be curtailed, if not entirely withheld, temporarily at least, for want of public funds, while in America substantial relief is assured if the gauntlet of the port of entry can be safely run.

Whatever view of the situation may prove correct only time can tell, yet it may safely be assumed that the immigration of the next five years will not bring to our shores the most desirable material for good citizenship. It goes without saying that the losses in war are the best blood of the nation, because only the strongest youth and best manhood are called to the colors and the weaklings remain at home to help the women folk as "hewers of wood and drawers of water," and later to father the coming generation. The several nations will see to it, as a matter of national safety, if not of existence, that the best of the survivors do not emigrate,



and such as are permitted or encouraged to leave will come from the weaker groups.

With such a discouraging prospect it behooves us to increase our activities and vigilances in the direction of better legislation upon this subject of immigration. All of us are aware of the weight and unjust burden upon some of our Eastern states, and particularly New York State, as a result of the laxity of our immigration laws and the incomplete medical inspection under them by reason of the limited number of trained medical examiners.

It is not my purpose to anticipate any report the Committee on Immigration may render to the Association, but rather to call special attention to this important subject at a critical time. The transactions of last year are not clear upon the continuation of this committee, but in the judgment of the President and Secretary, it was deemed desirable to give it a place on the program in the hope that it has continued its work and may have a report for presentation and consideration.



## ANNUAL ADDRESS.

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### PUBLICITY AND THE PUBLIC MIND.

By DOUGLAS SOUTHALL FREEMAN, PH. D.,

*Editor The News Leader, Richmond, Va.*

The rapid extension of the field of your beneficent studies, gentlemen, is probably the reason for the selection of a layman to deliver the annual address before you. It is certainly this layman's only justification for accepting that invitation.

As long as insanity remained solely a medical problem any discussion of its social aspects was by the mark. But now that insanity is viewed not less as a disease of society than as a disease of the individual, all that illumines, even in the slightest degree, those congregate social forces that may superinduce mental disorders is of value in the study of the prevention of insanity. "Manias and delusions," in the now familiar words of Sumner, "are mental phenomena, but they are social. They are diseases of the mind, but they are epidemic" (Folkways [1907 edition], 210).

On this premise I shall endeavor to show you that there exists what I have styled the mind of the reading public; that this shows itself in numerous ways; that it bears an intimate relation to the instincts, has a very definite and necessary place between the mind of the individual and the mind of the crowd, and is of danger to society and of interest to you as psychiatrists when it passes from its proper place and helps transform the mind of the crowd into the mind of the mob. I shall conclude with nothing more substantial than a number of questions for your consideration, and I shall have to plead the employment of a somewhat limited psychological apparatus; but I shall ask your indulgence on the ground that an humble start is better than no beginning. For the subject we are to discuss, strangely enough, is one that has received but scanty attention from the many eminent men who

have developed social psychology—Spencer, Tarde, Le Bon, James, Ross, McDougall, Davis, Cooley and the rest.<sup>1</sup>

Modern publicity has developed so subtly and into so many channels of recent years that few of us can appreciate the tremendous influences it brings to bear on our mental processes. The gossip may now sit an hour at her telephone and spread more scandal than the idlest spinster of a generation ago could have disseminated in a month. Congregate city life, spent in trolleys that carry advertisements, along streets lined with signs and in homes and offices to which the mail may bring its message three or four times a day, offers infinite possibilities for publicity. Those who need this for themselves or for their products have overlooked few of the many channels. Every railroad, every large corporation, every great industrial establishment, every department of government and every great technical society now has its regular publicity, the end and object of which is to reach and impress the individual through the crowd. One need only read the admirable monographs on advertising—those of Scott, for example—to realize how accurately, how thoroughly and how scientifically the maker of Uneeda Biscuit or the manufacturer of Gold Dust seeks to make his product known to every literate American.

The greatest of the agents of publicity, the newspaper, has acquired dimensions that are almost too large to be impressive when stated in figures. Of the 20,041 daily and weekly newspapers in the United States alone, 2694 are daily. These have a total combined daily circulation of 25,357,000, or approximately one for every four persons in the United States (Ayer's Directory, 1915).<sup>2</sup> When it is remembered that the average intelligent male

<sup>1</sup> As I shall not have occasion to refer directly to the work again, I must at this point express my indebtedness to Howard's *Social Psychology, An Analytical Reference Syllabus* (Univ. Neb., 1910). This is truly invaluable as a guide to the published literature.

<sup>2</sup> A very interesting monograph might well be written on a study of the statistics of the press as they illustrate wide reading and a consequent information in respect to government and social progress. The circulation of 25,357,000 mentioned in the text is distributed as follows among the American states: Alabama, 177,000; Arizona, 28,000; Arkansas, 80,000; California, 1,100,000; Colorado, 208,000; Connecticut, 223,000; Delaware, 35,000; District of Columbia, 178,000; Florida, 110,000; Georgia, 247,000; Idaho, 35,000; Illinois, 2,590,000; Indiana, 695,000; Iowa, 539,000; Kansas,

citizen has been shown by investigation to spend 15 minutes the day in reading his newspaper (Scott, *Psychology of Advertising*, 232), that 42 per cent of a selected list read two papers a day, that every paper is read by an average of two persons, and that 3 per cent of the same selected list read all the papers published in a large city, the tremendous scope of newspaper publicity is but barely indicated. What else is there that keeps the average man in touch with the world for an average of 15 minutes the day? What other agency is there, for good or for evil, that can be said to hold and to inform the average mind for that length of time every day of every week?

As a result of a certain misdirection and misunderstanding, upon the details of which it is not necessary here to dwell, we have an American aphorism that "if you see it in the newspapers it isn't so." In this spirit some of us believe that we are immune to the influence of this publicity. It is for this reason, one may well believe, that the subconscious influence exerted by the press is so profound. On the broad ground that we do not believe what the newspapers say, we believe all the more that which we forget we have learned from the press.

As proof of this—if one might pause to bring proof to bear on a question that is but incidental to the general argument—all newspaper men are frequently impressed and sometimes amused to find their own arguments repeated after them as new creations of the mind. Thus an editor may say to-day that the collapse of Russia's offensive is due not to casualties or to lack of men, but to her difficulties in procuring arms and ammunitions—a very

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221,000; Kentucky, 247,000; Louisiana, 65,000; Maine, 82,000; Maryland, 380,000; Massachusetts, 1,815,000; Michigan, 780,000; Minnesota, 580,000; Mississippi, 43,000; Missouri, 1,498,000; Montana, 62,000; Nebraska, 305,000; Nevada, 17,000; New Hampshire, 60,000; New Jersey, 387,000; New Mexico, 15,000; New York, 5,355,000; North Carolina, 111,000; Ohio, 1,842,000; Oklahoma, 166,000; Oregon, 102,000; Pennsylvania, 2,488,000; Rhode Island, 133,000; South Carolina, 81,000; South Dakota, 49,000; Tennessee 298,000; Texas, 558,000; Utah, 67,000; Vermont, 44,000; Virginia, 228,000; Washington, 442,000; West Virginia, 129,000; Wisconsin, 464,000; Wyoming, 13,000. With all allowance for the influence of the local weekly press and for the circulation in other states of some of the newspapers that have a very large circulation, how does New York show the influence of its press, and wherein does Nevada suffer or benefit from the fact that it is almost without newspapers?

trite fact, to be sure, but one that may not have been stressed in the news columns—and the editor may cite illustrations and statistics to prove his case. A week or two weeks later the same editor will hear someone begin, “You know, I’ve been thinking about the reasons for the Russians’ failure to employ their strength and I believe it is due——” and he will be regaled with his own facts and approximately his own figures. The new sponsor of this view would be offended if told that he got his views from his daily newspaper, yet such is the fact. Indeed, the very vagueness of the American phrase, “I read somewhere, I forget where,” is the most eloquent proof of the impersonal but dominating influence of the press. The same truth is shown in those new phrases which the newspapers coin and the reading public adopts, altogether unconscious of the source of its inspiration. A volume might be written on the new additions made by the newspapers to the popular vocabulary in a decade.

If we concede the strength of this vast publicity we cannot, I think, avoid the conclusion that there is such a state of mind as that of the reading public. It has its peculiarities; it is controlled by rules which it is the ambition of every editor to discover and it shows itself in so many ways as to make a *a priori* argument unnecessary. In citing some of these, as proof of the existence of this mind of the reading public, I shall with your permission so group them that you may anticipate from my examples the next point in my argument—that the mind of the reading public bears a close relation to the mind of the crowd and to the mind of the mob, as we know them psychologically, in that it reflects the elemental emotions and the primal instincts of human nature.

Let us first consider those in which there is the suggestion of panic.

I do them no injustice when I say that those who most fear the press of the country are the bankers. This is not because they have anything to conceal, but merely because experience has shown them the tremendous financial danger of an appeal by the press to the fears of the people. To cite two examples: Some time ago a newspaper printed in a foreign language in a large city published a brief, inoffensive item to the effect that the regular examination of a bank was being made. Unfamiliar with the meaning of this, certain foreign depositors who read the notice



became alarmed for their funds. The next morning found a line of them in front of the bank ready to withdraw their deposits; the frenzy of the ignorant aroused the fear of the more intelligent, in precise accordance with Ross' law, and soon there was a run on the bank which forced a closing of its doors and the impairment of its assets. And all because the editor unconsciously aroused the fears of his foreign readers by the publication of a notice that most newspapers have long ago learned to handle as they would dynamite.

Again, the run on the Knickerbocker and Carnegie Trust Companies, which led to the panic of 1907, while it was not due to newspaper publicity, was certainly increased to disastrous proportions by the immediate publication of the news that a crowd was gathering before the doors. On the other hand, who can say but that the disaster might have been averted had some newspaper rushed, to the street in front of the trust companies, an extra edition in which good authorities were quoted to the effect that the institutions were solvent and could pay their obligations.

Very similar in character is the effect of modern publicity on the public demand for commodities. For example, during the early days of the war a newspaper of my acquaintance printed on its front page an article in which an anonymous sugar refiner was quoted as saying, with many qualifications and provisos, that sugar might reach 15 cents the pound. The desk man in that particular newspaper office saw the "scare" in the item and prefaced it with a flaring headline, "Sugar 15 Cents a Pound." The person who read the entire story would, of course, realize that if that price was to be reached a number of things, all remote possibilities, had to come to pass. But owing to what Ross has called the American habit of paragraphesis, the busy housewives, or some of them at least, read only the first paragraph, "the lead." The result was a rush on the retail groceries and cut-rate tea stores that drove sugar from  $7\frac{1}{2}$  to 11 cents. One woman, whose normal family consumption of sugar was about seven pounds the week, did not rest content until she had purchased 300 pounds—at almost twice the price she would have had to pay three days later.

I have cited these simple and homely illustrations because it has seemed to me that they show as strikingly as do the money panics so well described by Conant, Gibson, Juglar and Sprague, or the



classic waves of speculation mentioned by Sidis (*Psychology of Suggestion*, 343-49), the readiness with which the public mind, under the stimulus of the press, can be led to acts for which there is no reasoning or reasonable explanation. Every newspaper has it in its power to reproduce on a small scale the Mississippi bubble or the tulip mania.

Close akin to these panics and like evidence of the existence of this mind of the reading public are those curious morality waves that sweep every country from time to time. In the seventeenth century it may be a Salem witchcraft frenzy, so carefully analyzed by Upham (*Salem Witchcraft*) and by Sidis (*op. cit.*, 331 ff.); in the twentieth it may be, as now it is, the anti-vice crusades that are sweeping the country. The one was an appeal to the superstition and fear of the New Englander; the other makes a more detailed emotional and a scarcely less striking instinctive appeal to the fear of the intelligent city man. The one had the advantage of an historical priority of 200 years; the other offsets this by having at its command newspapers that fan to flame the natural concern of a chivalrous people for the safety of its women. Salem witches were tried by public opinion rather than by law; vice crusades—however much they may accomplish for good—are fundamentally the sentence imposed by the mind of the reading public. For how could they be organized in our complex society without the newspaper to crystallize and, sometimes, to misdirect the mind of its readers?

Of the same type, too, are the fears that come of some particular agent or means of destruction—crazes that are analogous to the "Great Fear" of 1789, that national hysteria so graphically described by Morse Stephens (*French Revolution*, I, 178-79). The white slavery excitement is a case in point; the concern over the discovery and reported use of the Maxim silencer is another; the most striking by every count was the veritable mania that swept New York during the winter of 1913-14 as a result of the so-called "poisoned needle" disclosures. The last named I would especially commend to you for study, as it illustrates on a large scale a popular hysteria that would seem to have a connection with those individual cases of hysteria that sometimes lead to acute mania. Incidentally, the "poisoned needle" affair would seem to disprove Ross' first law of crazes—"the craze takes time to

develop to its height " (Ross, *Social Psychology*, 76). and to show how quickly the mind of reading public, through the wider circulation of newspapers, may become distraught with a sudden fear.

Taken together, it seems to me that these and like examples of the same character that have doubtless occurred to you illustrate the ready assertion of the emotion of fear and, indeed, of the instinct of flight, in the mind of the people as they read the papers—to use the words "emotion" and "instinct" as they are defined by McDougall (*Introduction to Social Psychology* [1909 edition], 49). Men withdraw their money from bank or dump their holdings on a declining market from the same instinct that prompts them to flee from a burning house; they become frenzied over vice crusades or white slavery or poisoned needles just as they became madmen from fear of witchcraft. And they act, not from the impulse given them by commingling on the street corners to be harangued by some wild orator, but from the suggestion conveyed to them primarily through the modern means of publicity. They may become a mob; they begin as a reading public. And the fears which but vaguely suggest themselves to the average mind find, in the columns of a certain type of newspaper, constant and exciting stimuli through "confirmation" of the wildest and most improbable stories.

But lest you think that this indictment applies to all newspapers, or is the constant fault of many, let me present the other side of the case and remind you that often the newspapers stabilize the public mind and allay the rumors they are sometimes charged with circulating. I cannot do better than cite, as proof of this, a single occurrence of comparatively recent date. The newspapers of Butte, Montana, were so threatened and bullied by labor organizations that they decided to give the city a taste of life without newspapers and, by agreement among themselves, all of them suspended. The result was a return to a "state of nature" and, incidentally, almost the bankruptcy of the two leading dry goods stores. The reason was not merely their inability to advertise their goods, but their utter impotence in the face of a rumor that smallpox had broken out among their clerks, rendering it dangerous to visit the stores. The newspapers, of course, could have laughed this rumor out of credence in a single issue.

Closely allied with these social phenomena that illustrate the emotion of fear and the instinct of flight are those in which the tendency of the public to exaggerate is asserted in a most striking but often in a somewhat confusing manner. So far as I know there has been no adequate analysis of these phenomena, but to you, as alienists, they are certainly important. The active, impatient and imaginative American mind—somewhat misinterpreted, I take it, by Le Bon (*The Psychology of Peoples*, 140)—is almost Gallic in its fondness for excitement and its readiness to jump to conclusions. It was perhaps never better judged than by one of the fathers of modern yellow-journalism who told his chief editors always to “feature” on their front page daily a story which, when he read it, would make the average man cry “Gee, whiz!” This “gee-whiz” mind is also strangely pessimistic for that of a people so young and so hopeful. The average man seldom hears any rumor that he does not construe into the worst disaster of that particular type for which he has any recent parallel. If a fire breaks out rumor at once declares it “the biggest fire” since such-and-such a well-remembered conflagration. If a drought is observed, it is certain to be the “worst drought” since such-and-such a year; if times are hard, they are destined to be “as bad as 1893” or as the direst period of depression recently observed. There must, likewise, always be taken into account the inclination of a certain type of mind deliberately or otherwise to magnify any report it receives and transmits to someone else. If a business house is having a dull season, gossip to that effect will soon have the concern on the verge of bankruptcy; if a man makes the least misstep, he is tried, convicted and sentenced by public opinion before the first evidence is presented. The simplicity of this process, its speed and its most alarming aspects are only discernible, I suspect, from the inside of a newspaper office, to which, in the nature of things, come all the requests of the public for the confirmation of the most absurd rumors. To cite a very simple illustration, we have in Richmond a venerable police justice who is a most unusual character—known to practically every one in the city. He has been in bad health for some years and has been forced to take several vacations for recuperation. I think I am within the facts when I state that not one of these vacations has passed but that at some

time during its progress the newspapers have suddenly been deluged with requests to know if the report be true that the judge is dead.

It is precisely the same throughout the country, I believe, when the President goes on a journey. If this be well advertised, and especially if it involves attendance upon any exposition or great gathering, the chances are that the newspapers will suddenly begin to receive inquiries if it is a fact that he has been assassinated. The reason, of course, is the recollection of President McKinley's fatal visit to Buffalo.<sup>3</sup>

These phenomena are of some interest in their origin and they offer a curious intermingling of the instincts of fear or apprehension, of curiosity and of the desires to anticipate conclusions and to be the first to report a fact of interest. But to you, gentlemen, they must primarily be of interest in the questions they raise in your mind as to the influence of the mind of the reading public on the disordered mind of the individual. If the people are so prone to exaggerate and to anticipate the worst, what may be the suggestive influence of the many on the few? Incidentally, these phenomena are of the greatest international moment at this time, inasmuch as the danger of war lies not in the possibility that the President will make a mistake or that Germany will assume a belligerent attitude, but rather that the newspapers may so fix the mind of the reading public and so work on its pessimism and impulse to exaggerate that it may force the government to war because the people believe that war is to be. It was so, as we all remember, in 1898.

We come now, with your permission, to that group of phenomena which, it seems to me, illustrates more clearly than any other the existence of the mind of the reading public and affords us the best basis for that analysis which is to show us the psycho-

<sup>3</sup> It so happened that the day after this paragraph was written, there came curious confirmation of the point made in the text through a wild rumor on the "ticker service" that President Wilson had been assassinated. The reason for this rumor was, of course, the general apprehension of the serious events that would follow the death of the President at the time when excitement over the Lusitania incident was at the highest. Incidentally, the stockmarket broke four points on some issues before a denial from Washington could be had.



logical importance of a proper direction of that mind. I refer to the phenomena in which the inclination to imitate is the dominant factor, and I do not think it necessary, for our purpose, to decide between the views of Tarde (*Lois d'Imitation*) and those of McDougall as to whether this is an instinct or a non-specific innate tendency. The distinction in any event is so small as scarcely to be worth while.

For convenience of discussion I shall ask you to let me divide these phenomena into four subdivisions—religious, criminal and suicidal, fashional, and recreational.

In referring to the imitative aspect of religious revivals, I dare not follow the interesting trail blazed by Sumner regarding religious customs (*Folkways*), and I trust I shall say nothing to give a material turn to that "change of heart" in which I most earnestly believe. But we must all agree that there have been many emotional upheavals in which the instinct to imitate played a very large part. The children's crusade was one (Ireland in *Journal of Mental Science*, 52, 745, etc. See other references quoted by Howard, *op. cit.*). The famous Kentucky revival, so often mentioned in the reference works on social psychology, was another (McMaster, *History People United States*, quoted in Ross, *op. cit.*, 50 ff.). A third we see in the remarkable meetings held by Mr. Sunday. If it be true, as claimed, that Mr. Sunday has been the means of converting more persons than any minister since apostolic times, we must attribute the fact not only to the remarkable powers of the man, but to the skill with which he uses every means to arouse the imitative instinct. It is in no empty desire for self-glorification that he employs some of the best press agents in America; it is not to attract attention to his own belligerent personality that he asks to be given the whole front pages of the newspapers in the cities where he holds his meetings. He knows that there is a mind of the reading public and that the instinct to imitate can best be aroused by filling the minds of the people, before they come to his tabernacle, with the subtle suggestion of an invincible spiritual and emotional appeal. In no desire to criticise him or to pass judgment on his methods, I submit that Mr. Sunday is a most successful revivalist because he is, among other things, an exceptionally shrewd psychologist. Thanks to modern methods of publicity, he has half his work done for him before he mounts the platform.



It may seem somewhat incongruous to turn immediately from the mind of the reading public as shown in religious revivals to the mind of the reading public as shown in suicide and criminal waves; but they rest, in part at least, on the same psychological foundation. There are few, if any, more striking social phenomena than the contagion of suicide. Seeck (*Untergang der Antiquen Weld*, I, 258 ff.) attributed the suicide waves of ancient Rome to that "pessimism" which "took possession of the old peoples at the beginning of the Christian era"; modern writers have found somewhat the same explanation for the high suicide rates of certain European countries. Whether this can possibly be the case in so young a country as America it is not my task to discuss; but that there is a strong imitative factor in the methods of suicide is a truism among observant newspaper men. All of us know that if a particular form of suicide is reported with dramatic detail in the newspapers, the next suicide and probably the next group of suicides in the same city will be by the same means, within certain limitations, to which I shall presently call attention. Sometimes, if a suicide be given unusual publicity, it will be imitated throughout the country. The recent bichloride of mercury wave was, by all counts, the most striking example of this kind that has occurred during my recollection. You will remember its origin and progress. A Georgia business man took corrosive sublimate by accident and, after he was told that he would certainly die, he went very deliberately about setting his house in order. As you doubtless observed at the time, the facts were not as they were dressed by some conscienceless and imaginative reporter, for a man who was dying of bichloride poisoning could not entertain his friends at banquets and speculate, Cato-like, on his coming dissolution. But the dramatic element in the case aroused the imitative instinct among those who contemplated suicide and found it easy to procure bichloride tablets. The result was a most alarming wave of poisoning with this compound. I counted twenty reports of such suicides in a few weeks, and was not surprised when a leading medical organization felt called on to tell the public (through its publicity bureau of course) that if persons would insist upon committing suicide they could do so with much less trouble and torture than by taking bichloride tablets. The same waves are to be observed in suicides from

shooting, drowning and the like, with carbolic poisoning always to the fore, primarily because this acid is universally known and can usually be purchased without difficulty, thanks to our clumsy drug-laws.

The same instinctive tendencies show themselves in crime, both individual and communal. In a Tennessee city, for example, a well-dressed woman walked into a barber-shop with a revolver concealed in her muff and, calmly drawing the weapon, shot her lover to death as he sat in the barber's chair. The unusual character of the crime and the strange setting placed the story on the front pages of the papers of that city. The appeal to the imitative impulse was strong; within a few weeks two colored women, procuring muffs and following the precise details, shot their lovers in barbers' chairs.

I need scarcely illustrate, in this classification, the now familiar psychology of lynchings. *Le Bon* (The Crowd) has explained how, in such an outbreak of law defiance, the mind of the mob is baser and more criminal than that of the individuals composing it; *Ross* has shown how the worst elements dominate (*op. cit.*); a number of observers have accurately attributed this to the instinct of men to imitate, through the mere stimulus of the crowd, the violence of the worst. The point I wish to make is that lynchings have usually occurred where the public mind was aroused by the horrible details of the tragedy, as reported in the newspapers, and by the unconscious suggestions of violence in the presumably accurate published statements that such action was considered in the crowds that "gathered on the street corners." There must, in a word, always be a stimulus; it is more often the unintentional hint of the newspaper than the cry of some desperado, "Come on, let's lynch him." On the other hand, I submit, subject to correction by those whose observation has been wider, that few lynchings ever occur where the press can state at the outset, on proper authority from the executive, that special deputies will be sworn in or that the militia will be called out to enforce the law. The fact that Virginia has not had a lynching in almost 20 years is to be attributed, I think, to the emphasis of the newspapers on this point, and to the uniform promptness of our Governors in declaring that the whole force of the commonwealth would be exerted to prevent violence.

The chief deterrent in the imitation of suicides, needless to say, is the horrible suffering of the victim on his non-success, or, in the case of crime, the immediate punishment of the perpetrator. This is of course nothing more than plain common sense, familiar to all; but it is illustrated sometimes in a manner that may escape observation. In suicides, in particular, there is always in the disordered mind of the would-be self-destroyer a desire to do something dramatic and to make way with himself with the least possible suffering. In such instances the prospect of defeat or of suffering is usually a deterrent from the imitation of a particular method. Hedda Gabler's horror at the means of Eilert Lovborg's death, as told by Ibsen, is psychologically sound (Hedda Gabler, Archer's Translation, Ibsen's Collected Works [1909 edition], 10, 176). We see like instances almost daily in our newspapers. Not many months ago, for example, an unhappy woman attempted to jump to death from a high building in one of our cities. She was restrained, was arrested and was given most undesirable publicity. Only one woman seemed determined, in the face of this warning, to attempt the same act in the same manner. Going to the identical building, she threw herself down and was picked up from the concrete court of the building an unrecognizable mass of flesh and broken bones. The newspapers which had printed the failure of the former woman to commit suicide published the story of the latter woman's success and gave in all detail the horrible picture of the body. It may safely be ventured that none who read that story will be inclined to imitate the victim; and it may also be stated with some assurance that had the Georgia newspapers presented to their readers the suffering rather than the stoicism of the citizen who started the bichloride wave by accident, that form of suicide would not have been repeated.

As for the deterrent influence of punishment, who has read of a second lynching in a town where members of a lynching party were convicted even of manslaughter? And who fancies that another court tragedy will follow the conviction and execution of the Allens?

Ere I pass from this phase of the subject, permit me to suggest that there must be material for very fruitful investigations along these lines in your suicidal and homicidal wards. Does the law of

imitation apply there as fully as in the normal walks of society, where the vast and varied influences of publicity are at work?

The imitation shown in fashions presents many striking illustrations of the mind of the crowd and of the mind of the reading public, but as these are all familiar, I need only dwell on one fact, that the publicity which makes fashions is, within certain bounds, the publicity that destroys them. We owe the curious "tight skirt" scarcely less to the necessities of modistes than to the emphasis placed upon its fashionable character by the women's periodicals and the newspapers. We owe its disappearance not only to those whose income depended upon making something else popular, but also to the newspapers which ridiculed it. The imitative rule in dress is, of course, to carry any fashion to the extreme—as witness crinoline, the large sleeves of the nineties, and the merry widow hats of five years ago; but the cartoonist can destroy what the designer makes. Goldberg is not less potent as an arbiter of fashions than Chéruit or Lacroix, and the shops of the Paris boulevards would close in a season were it not for the women's pages of the dailies.

The same is true of the amusement manias, the psychology of which is so well known as not to need discussion here. One need only remark that in this respect the instincts which showed themselves in the dance manias of the middle ages, so graphically described by Hecker (*Dance Manias of the Middle Ages*), have not changed in the slightest in 400 years. On the contrary, it is perhaps safe to say that Ross' law on this subject could not be stated with so much precision (*op. cit.*, 76 ff.) were it not that what is done at Churchill's to-night can be known throughout America to-morrow, or that Mrs. Vernon Castle's newest step can be reproduced in every motion-picture theater in the country almost before her first New York pupils have been perfected in it. As for baseball, the "world's series score-boards" in all the American cities show how the newspapers have not only created an interest, but have actually visualized a scene that sets thousands of men to cheering.

In all of this we see what Tarde has so beautifully described in his classic description of the spread of the domestic arts—"the unheard-of sight of many vast nations feeling, at the same time and in about the same way, the beautiful and the ugly, good and



evil, admiring or mocking at the same pictures, the same novels. the same dramas, the same operas, applauding the same acts of virtue or becoming indignant over the same crimes, crimes that are made public by the daily press in the four corners of the globe at the same time." (Tarde, *Law of Imitation* [Parsons' translation], 345.)

The confines of this paper make it impossible for me to further illustrate the manner and extent to which the reading of the people shapes the mind of the people. But I trust I have said enough to show you that this publicity sometimes determines a state of mind in the reading public and that its effects on the people as a whole may be different from its effects on perhaps any single reader. I think it may even be said—though it is not necessary for our argument—that the congregate effect is greater than the sum of the effects on the individuals. This is at least in accord with what we know of social psychology.

But if we admit so much, what then? The important task—for you, gentlemen, the only useful task—is to ascertain the bearing of this publicity on the mental life of the people, to determine how the mind of the reading public affects the minds of those of unstable mentality, and to see what may be necessary to keep sane the mind of this reading public.

Psychologically, the aim of the press must be to link the individual with the crowd, and to unify the mind of its reading public. This is necessary for good government; it is necessary to protect the people from unscrupulous politicians; it is necessary to give expression to that which we call the "will of the people"; it is necessary to safeguard public interests from the indolence of the individual. Were the newspapers to fail in this, we should be an army which had no outposts, a city with no watchmen on the tower. We have left so much to the newspapers and have become so dependent upon them, as our cities have grown, that they are almost as necessary a public utility as a system of transportation, and almost as essential to political health as are water supplies and sewage disposal to public health. If we deny their mission to unify, indeed to create, the mind of the reading public, we take from the newspapers their most useful mission.

On the other hand, the newspapers must keep the mind of the crowd from becoming the mind of the mob, or, to state the case



in its psychological sense, must keep the instincts from overcoming the sentiments, the reason and the emotions of the people. To illustrate this very simply, the press must so consolidate the mind of the voters and so inform them through the newspapers they read, that the people will not give away their valuable franchises for naught; but the press must restrain the very forces it has set in motion, lest it encourage that corporation baiting which leads to the overthrow of property rights and brings us to the verge of anarchy. The press must, to take still another case, so arouse careless individuals that they will demand good government and hold to a strict accountability the public officers they choose; but the newspapers must repress that instinct which would, in correcting one abuse, open the way to another and a worse.

To direct the mind of the reading public and to keep it from becoming the mind of the mob—this is a task in which, it seems to me, the press of America needs your assistance. We have had the preventives of the mob mind pointed out for us by Ross and McDougall—education, better teaching and leadership, a better press, a better literature, a better environment, more stable institutions and more strongly emphasized family life. But these are the standing remedies for all social ills. If we are really to take preventive measures, we must understand more completely the method of infection. We must know precisely what there is in some newspapers that drives men mad and foment the mob spirit. We must go to individual cases and must ascertain, if it be possible to do so, just what influence from the mind of the reading public may upset the mind of the man who comes sooner or later to your hospitals. Editors see the danger and sometimes they see the victims—men who become anarchists from reading of social injustice, men who have delusions that seem to bear a very close relation to their newspaper reading. We need to investigate every such case carefully and to weigh the newspaper in its relation to the social causation of insanity. How much of the excitement that stirs, or is synchronous with mental disorders is due to the newspapers? How many cases have you in your hospitals whose mania could, upon investigation, be traced to the suggestion of the press or to the mind of the reading public? What do we print that is dangerous and what may we print that is wholesome? How can we do the work we owe society and government without

danger to those we would serve? How far must we go in preparing newspapers that are "mentally safe," not only for the strongest but for the frailest mind?

I warned you that I should conclude this paper with nothing more stable than questions, and now I have asked them. They may be worth your answering. They may make it of some interest to you to investigate your patients' history for the possible influence of the mind of the reading public.

For who knows what we may find of the social causes of insanity? We are on the frontier of a new continent. Just as the methods you employ to-day are as different from the regimen of the straight-jacket as the democracy of America is different from the autocracy of a Sforza, so it may be that in prevention, as in treatment, we shall find new angles of approach and deep-seated causes as yet beyond our vision. I do not know. I should be presumptuous to speculate. But I cannot think it will be futile for you to delve with master hands where I have but touched with amateurish fingers, and to ascertain if there be not some connection between those instincts which are wont to warp the mind of the reading public and those mental disorders which are but exaggerated instincts.



## INSTITUTIONAL STASIS.

By H. C. EYMAN, M. D.,

*Superintendent Massillon State Hospital, Massillon, Ohio.*

The word stasis comes from the Greek and means a standing or a stoppage, and how prone we are to come to a standstill in hospital matters! Institutionalism may mean decay, may mean ruts, and ruts, you know, are narrow tracks worn in the ground, especially hollow tracks.

"A sleepy land where under the same wheel  
The same old rut would deepen year by year."

Why, even road supervisors will tack up signs instructing the drivers of automobiles to keep out of the ruts. Our hospital life, because of the necessary routine, is apt to become a "sleepy land," and sometimes it requires a severe jolt to shake us out of the ruts, awaken us into new life, infuse new vitality into our work, new hopes, new aspirations and new power into the wheel which for years has been deepening the hollow tracks. My criticism, if such it seems to be, is in the nature of constructive criticism, and with no intention to wound or offend. There are some ruts which are commendable, and for which we should all strive. Such beaten paths as uniform kindness, courtesy, integrity, loyalty and industry can never become narrow nor commonplace. There are, however, many phases of institution life which tend to narrowness, and the routine work of the officers, employees, and even the everyday life of the patients, is apt to result in a deep rut, out of which we can only be displaced by a violent jolt. These routine duties, performed daily, in almost exactly the same way, produce in the officer or employee an unconscious habit which surely brings in its wake hollow tracks. Could we but have the rays of the light of progress thrown in upon our work, I fear we should find in many places moss-covered and decaying spots. These rust spots are not confined to any one department, but, like the San Jose scale among our shrubbery, soon invade the whole institution. No department can be exempt from this inevitable trait of insti-

tutionalism. If we be not constantly filled with a profound sense of justice and duty, and if we do not have the energy and industry to discharge these duties, and are not constantly active in the pursuit of higher ideals in the advancement of all that pertains to institution life, the small as well as the larger things, we are apt to fall into institutional stasis. Industry and enthusiasm are touchstones which, when properly directed, will clean our institutions of this death-dealing scale and lift us out of these hollow tracks. I do not exempt the superintendent from this challenge. To fill the position of superintendent satisfactorily, to the patients, the relatives, the visitors, the Board of Administration and the powers that be, means a vast deal. By virtue of his position he is no ordinary man. He must combine professional skill and executive ability, and must show wisdom in the selection of his subordinates, as you all know how the imperfect working of a very obscure cog may materially interfere with the results expected from an otherwise perfect piece of machinery. He must know how to operate each of the various wheels in this hall of varied industries, else he cannot properly correct mistakes.

An eye taking in at a glance defects here or discords there. He must be filled with a divine discontent. Is it to be wondered at that the system and routine work, the everlasting grind necessary to the superintendency of this vast industry, should tend to one-sidedness, to narrowness, to hollow tracks, to stasis? His presence must fill the atmosphere, the stamp of his individuality and genius must be upon every piece and parcel. His energy must be limitless, his spirit must breathe through it all. The superintendent must force new energy into every branch and department of the institution, else for want of proper nourishment the branches wither and drop into decay, for there is no such thing as real stasis. We must either advance or recede. To do the things to-day as they were done yesterday, simply because they were done so yesterday, shows simply that the spirit of advancement is dead. Habit has stepped in and taken control, and retrogression has begun. He who fails to hear the call for progressive work must needs be crushed by the wheels of the juggernaut of scientific advancement. One of the amazing features of institutional life is the fact of the medical department being afflicted with hollow tracks, with stasis.



The most disheartening condition which can befall the management of an institution is to have assistant physicians who are just able to hang on, who do their various duties punctually may be, but in a perfunctory way, following lines of habit, content to be able to sign the pay roll monthly, and to escape the actual condemnation of their superior officers, not pushing forward to the very front of the column. They become contracted in their field of learning, cease to read medical literature, because from their view-point it is not really necessary; thus they not only become stunted specimens, but they actually bring the standard of the institution with which they are associated to a lower level. They are precocious carriers. While they may be able to just hang on, yet the force of their example may, and almost surely will, be the cause of deflection in some one who might otherwise be of some positive value. You know in such diseases, for instance, as diphtheria, there may be persons who, while not subjects for the disease themselves, yet carry it to others and thus pass the infection along. They are known as carriers. And then in horticulture, there are trees and shrubs of little value in themselves which are covered with scale and to which the scale does little damage, but they are liable to infect all shrubbery and trees of value all about them. These again are precocious carriers. The employees or officers acting as precocious carriers should receive the same treatment as the Carolina poplar in Ohio: dig them up by the roots. No arboretum can thrive if infected by scale. No institution can make progress with dead weights or precocious carriers attached thereto. Avoid this stasis. To steer clear of this rock the staff should constantly bear in mind the fact that to the personal and individual effort of each is the welfare of the patient due. It is manifestly impossible for the superintendent of a large institution to give much medical attention to each individual case. It is to the assistant physician he must look for succor in this direction, and if the physician is, to drop into modern slang, "a dead one" or afflicted with institutional stasis, then the poor unfortunate must suffer, and the reputation of the entire institution be challenged. To drop into ruts and live far beneath his privilege does not mean that the physician must be lazy and inattentive. He may be punctual, industrious, polite and careful, but if he be not all these and possess in addition thereto intelligent zeal for

progressive work, and above all have sanctified gumption, he is simply filling in and becomes a succedanium, that is, "in the place of." To stand like a stone wall answers very well while the enemy is pounding against you, but to win battles in life we must not stand still, but ever forward and onward.

The most effectual treatment for persons mentally alienated is diversion and variety of interest. It will not suffice to visit your patient this morning, ask him the same questions, offer the same advice that you did yesterday and the day before, but you must strive to so invest your talent that you can offer something new each day. Even the forms of amusements must be studied and carefully advised, and the character of the employment needs your close attention. I have known patients to plod along year in and year out, doing the same work each day, with never a hope of improvement, but give these patients a complete change of environment, a new line of work, and their mouldy intellects commence to crack and strain, and oftentimes a steady and permanent improvement begins. You must jolt them out of the rut, as we in turn are jolted out. We are apt as medical men, after years of constant work amongst the insane, to make snap-shot diagnoses. A man is admitted, who expresses delusions of wealth, power and grandeur, whose lips tremble, who enunciates indistinctly, and immediately we say, "G. P.," "incurable," and dismiss him from our mind, and still a more careful examination may reveal distinct etiology for a vastly different pathology, and scientific treatment promptly applied may restore him to his family and make him a breadwinner again.

It is this unscientific standing still which handicaps us, and bridles our natural industry, and causes us to fall behind in the race for preeminent scientific work.

Of all the hollow tracks, however, I think the non-reading habit or rut is the most baneful. We may have formerly read much, and it may be also true that we have found much in print which was valueless, and we have therefore gradually and almost unconsciously formed a non-reading habit. So rapid is the advance along lines of medical thought that it has become an accepted fact that a standard work ten years old is almost worthless. What, then, can we say of the physician who has not carefully read a work treating of his specialty for ten years? Is it possible that he can be in the van?

And then another symptom of this institutional stasis is our smug self-sufficiency. We gradually neglect our medical societies, and after a while cease even to be affiliated with our local associations, and thus lose the necessary prod, which we would get if we rubbed more against our professional brothers. We become isolated, and to a large extent cut off from our friends. We are self-centered in our absorption, and may even lose faith in our profession and in ourselves.

I have always thought that a consulting staff of physicians from the outside would stir us up more than anything else. The mere rubbing against our confreres would wear away some of the rust spots. True we might have occasional differences of opinion, and we might have to submit to some ungracious and probably unnecessary criticism, but even that would be better than stagnation. The new ideas rampant in all branches of medicine or allied sciences make the non-reading doctor disappear quietly albeit quickly, and instead of standing still he will have a real third speed backward. Even old and tried ideas must needs be rehabilitated, and real effort is required to get on speaking terms with them. We are not to glory over past achievements nor be satisfied with battles won. These are really of little moment. Our battle cry must be, "What of the future?" The obstacles in our path to be removed deserve our first consideration. 'Tis these that make us buckle down in our effort for supremacy. And how can we accomplish great things if we are content to follow the rotten track of indifference? It has been said that it was to the dreamer we must look for the last word in science, in literature, in everything; the man who would run a state hospital successfully must be the dreamer plus the dynamo, the dreamer in action, the dreamer waked up. The institution with a staff afflicted with stasis may glide along smoothly enough through the sleepy land, but no progress will be made and no results obtained. The dreamer with the dynamo, on the other hand, must look for frequent criticisms, must expect to be frequently misunderstood, aye, even may have some newspaper darts hurled at him, but with all this, he will have the contentment of knowing that if the darkness which almost envelops us is to be lifted he has been doing his part. I have in mind many ways in which this dangerous stasis may be attacked, but will content myself with having clanged the alarm.

## DISCUSSION.

DR. BURGESS.—I am heartily in accord with what Dr. Eyman has said. Speaking from 40 years experience, I can say that the great trouble is that we all of us think of great improvements we could make if we had the money but, unfortunately, the money is not always forthcoming. That, however, should not deter us; the aim of a hospital should be progress. The institution that stands still might as well be wiped out.

## SOME OF THE MORE RECENT PROBLEMS CONNECTED WITH THE STATE CARE OF THE INSANE.

BY JAMES V. MAY, M. D., ALBANY, N. Y.,

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The complete supervision by the state of the care of the insane in institutions has not been accomplished without numerous difficulties. The problems necessarily arising in the development of an undertaking of this magnitude have varied from time to time, and have recently assumed new and entirely different aspects.

We are concerned now not only with the task of caring for the indigent insane at a cost which is already a tremendous burden upon the state, but with the necessity of adopting new measures which will reduce the number of admissions to the institutions and obviate the need of hospital treatment in as many cases as possible.

New York opened its first hospital for the insane at Utica in 1843; the second at Willard in 1869; and the third at Poughkeepsie in 1871. These were followed by institutions at Middletown in 1874; Buffalo in 1880; and Binghamton in 1881. The first steps toward entire state care of the insane resulted from legislative enactments in 1889, since which time eight new hospitals have been provided for. The insane were not entirely removed from county houses and asylums until 1893. The number of patients in the civil state hospitals has grown from 16,006 in 1890 to 33,357 in 1914, an increase of 108.4 per cent.

The overcrowding in the institutions in April, 1915, was 6,105, or 22.2 per cent. New York now has 14 state hospitals with a capacity of 27,476; 10,000 acres of land in connection with them, and thirty-five millions of dollars invested in lands, buildings and equipment. This does not include the institutions for the criminal insane. The maintenance of the hospitals during the year 1914 cost \$6,684,376.18. The legislature appropriated \$104,054,987.56 for the maintenance of patients from 1891 to 1914, inclusive, and \$18,571,991.39 for additions and improvements.



Approximately one-sixth of the current revenues of the state are now being expended for the care of the insane. It will readily be seen that this imposes a burden upon the taxpayers that makes some kind of relief imperative.

The various procedures which have been instituted or proposed with this object in view may be summarized as follows:

(1) Measures on the part of the state for the prevention of insanity.

(2) Dispensaries and out-patient departments.

(3) Better care of the insane pending commitment.

(4) Supervision of paroled and discharged patients by after-care workers.

(5) The care of the insane in psychopathic wards and hospitals.

(6) The return of non-resident insane to other states.

(7) Federal legislation to prevent the immigration of the alien insane.

(8) A bond issue for the construction of additional buildings and new hospitals.

These proposed methods of alleviating the existing conditions will be discussed in order:

#### MEASURES FOR THE PREVENTION OF INSANITY.

The fact that 7.4 per cent of the first admissions for the year ending September 30, 1914, were forms of alcoholic psychoses and 12.4 per cent diagnosed as general paresis, a total of 19.8 per cent of all the first admissions, shows conclusively that purely preventable diseases play an important part in the etiology of insanity. Twenty-four per cent of the men and 6.8 per cent of the women admitted to the Manhattan State Hospital during the last year suffered from general paresis. The researches of Hoch, Meyer and others showed that many cases of dementia præcox and other psychoses are due to faulty mental mechanisms and are therefore largely amenable to preventive measures. Every effort has been made to bring the importance of these facts to the attention of the public and free use of the press has been made for this purpose. A special mental hygiene number of the *State Hospital Bulletin* is now in preparation and will be issued for general distribution in a short time. Occasionally mental hygiene conferences have been held by the State Charities Aid Association in

various parts of the state, and a very general interest has been shown in this subject by the public. The State Hospital Commission has maintained an elaborate exhibit at the annual State Fair at Syracuse for a number of years, and this exhibit has also been used to good advantage in other parts of the state, particularly in the larger centers of population.

Attention has been called to the etiology of insanity and the fact that many cases are preventable or manageable. Pamphlets on insanity have been widely distributed in connection with these exhibits and conferences. In addition to this, numerous papers have been read at public meetings by physicians from the hospitals and efforts made to enlist the cooperation of medical societies in mental hygiene work. The State Charities Aid Association has disseminated thousands of pamphlets relating to the subject of insanity, and has done valuable work in the education of the public along these lines. The State Hospital Commission contemplates the establishment of a bureau of prevention and after-care as soon as funds can be obtained for this purpose from the legislature, an undertaking which will eventually lead to definite and practical results.

#### DISPENSARIES AND OUT-PATIENT DEPARTMENTS.

As far as possible with the funds available, the commission has encouraged the state hospitals to establish dispensaries and out-patient departments for the care of cases not requiring hospital treatment and the supervision of paroled and discharged patients. This work when developed to the maximum will unquestionably have a very appreciable effect in reducing the number of cases committed to the care of the hospitals. Dispensary work has been undertaken already by the Rochester, Hudson River, St. Lawrence, Long Island and Gowanda state hospitals. At the Rochester State Hospital 225 patients were examined and given medical advice by members of the staff during the year. About 300 persons consulted with various members of the staff of the Buffalo State Hospital during the same period. The Long Island State Hospital conducts a dispensary at the institution as well as a downtown clinic. At the hospital 53 persons called for advice and treatment during the last fiscal year, and 37 visited the downtown clinic during the first three months of its existence. This

phase of work is as yet in its incipency in New York State, but it is certainly very promising. The results that can be expected from early treatment in dispensaries and out-patient departments will be shown by a study of the hospital residence of the patients discharged. Of those discharged as recovered during one year in the New York State institutions, 54 per cent had a hospital residence of less than six months, 29 per cent less than one year, while only about 2 per cent had been in the institutions for five years or more. Unquestionably a large percentage of these commitments would be obviated by early treatment and advice in dispensaries.

#### BETTER CARE OF THE INSANE PENDING COMMITMENT.

The laws of New York State delegate to the local health officer the duty of caring for the insane pending commitment and the responsibility of seeing that they are given proper medical and nursing attendance until they can be removed to a hospital. It is now absolutely unnecessary under any circumstances for insane persons to be placed in a jail or police station until a mental examination can be arranged for. When the condition of the patient is such as to require immediate care and treatment, he may be admitted on the petition of a friend or relative, after a medical certificate has been properly subscribed to by two qualified examiners in lunacy. In such an event, the order of a court providing for the patient's detention must be obtained within ten days. When the patient is dangerous to himself or others, and there is no proper place for his detention pending commitment, the law now gives the superintendent of the state hospital authority to admit such a case upon the petition of the health officer alone. A court order of commitment must be obtained within ten days or the patient released. The superintendent has the sole power to determine whether such a case is a proper one to admit under this provision of the law. These arrangements make it possible to remove immediately to the hospital people who have been taken often heretofore to jails and deprived of early treatment at a time when it is most important.

## SUPERVISION OF PAROLED AND DISCHARGED PATIENTS. SOCIAL SERVICE FOR THE INSANE.

At the present time about 1400 patients are temporarily at their homes on parole from New York state hospitals. This number of patients is equivalent to the entire population of one of our smaller state hospitals. The importance of this arrangement from a purely financial point of view is well worthy of note, leaving entirely out of consideration the comfort and convenience of the patients concerned. At a per capita cost of \$210, this means a saving to the state of approximately \$294,000 a year. The possibility of keeping these patients at home for any extended period depends largely on their careful supervision by so-called social workers or after-care agents. As far as the finances of the state will permit, trained workers have been assigned to the various hospitals for this purpose.

## THE CARE OF THE INSANE IN PSYCHOPATHIC HOSPITALS AND WARDS.

Attention has already been called to the large percentage of first admissions that leave the hospitals after a very short residence. A large proportion of these cases can unquestionably be cared for in psychopathic hospitals or in wards of general hospitals. There should be such institutions or wards in each county, or at least in every large center of population in each hospital district. These wards could also be used as places of detention. Many patients would undoubtedly be returned to their homes without the necessity of a commitment to a state hospital. The financial saving alone would be very large. The expenses involved should be a charge upon the county or be met by contributions from other sources. About 5000 cases are admitted annually to the psychopathic wards of Bellevue Hospital in New York City, and a large number to the corresponding pavilion of the Kings County Hospital in Brooklyn. The Michigan State Psychopathic Hospital has received 1397 patients since the date of its opening in 1906. Only 407, or 28 per cent, of these cases were transferred to state hospitals. Of 1342 discharges, 218 were recovered and 384 improved. The per capita cost of this institution is only \$1.18 per day. Twenty-nine and one-tenth per cent



of the admissions during the last hospital period were voluntary cases, 44.8 per cent of the discharges occurred after one month or less of treatment in the hospital, and two-thirds of the recoveries occurred within a period of three months after admission.

Certainly it is economy, if nothing else, to treat mental diseases in their earlier stages. Of the 1751 persons suffering from well-developed psychoses and admitted to Pavilion F of the Albany Hospital since 1902, 222 were discharged recovered and 508 as improved. This means a saving of thousands of dollars to the state, and is a source of economy which should be encouraged and developed.

#### THE RETURN OF NON-RESIDENT INSANE TO OTHER STATES.

During the past 11 years the Bureau of Deportation connected with the New York State hospital service has removed 2358 non-resident insane to the states in which they had a legal residence. This number is equivalent to the total population of the Utica, Buffalo, St. Lawrence, Rochester or Gowanda state hospitals, and represents a saving to the state of at least \$495,180, based on the present per capita cost of care. Many of the states have no laws which determine legal residence, although providing for a legal settlement within their boundaries.

The following agreement has been entered into between the New York State Hospital Commission and the State Board of Insanity of Massachusetts for the exchange of non-residents between these two states. It would be highly desirable to have such an arrangement extended to other states for the mutual benefit of all concerned.

#### RECIPROCAL ARRANGEMENT FOR THE EXCHANGE OF INSANE PERSONS ENTERED INTO BY THE STATE BOARD OF INSANITY OF THE COMMONWEALTH OF MASSACHUSETTS AND THE STATE HOSPITAL COMMISSION OF THE STATE OF NEW YORK.

(1) The term "resident" as used in this agreement shall be a person who has lived continuously in either state for a period of at least two years and, subsequently to acquiring such a residence in either state, has not acquired a residence in any other state by living continuously two years in such other state; provided that



time spent in an institution or on parole from an institution for the insane shall not be counted in determining the time of residence in a state.

(2) All insane residents of either state shall be promptly accepted by the duly constituted authorities of such state.

(3) In certain cases where the relatives or legal guardians or committee or persons legally liable for the maintenance and support of the patient are residents of either state, and some member of the family, or the ward of such guardian or committee, acquires a residence as defined in this agreement in the other state and becomes a public charge because of insanity, for the convenience of the relatives and for humanitarian reasons the person may be accepted by the duly constituted authorities of the state in which such relatives, etc., reside.

(4) Each hospital in each state shall accept promptly persons paroled by such hospital when returned to the institution by the proper authorities of the other state during the period of parole.

(5) For the purposes of this agreement, the residence of a minor shall be considered the same as the residence of the parents.

(6) Accurate and detailed histories are to be presented by each state in asking for the acceptance of a patient.

(7) No person is to be transferred from one state to the other who is not in condition to travel without danger to himself or to others, such transfers, however, to be made as soon as the mental and physical condition of the patient warrants.

(8) In returning an accepted patient under this agreement, the state making the return shall bear all the expenses incurred and the patient shall be accompanied in every case by an authorized agent of the state making the return to the place designated by the authorities of the state to which the patient is returned.

(9) By mutual consent, in any particular case not covered by the terms of this agreement, it may be modified to meet the special conditions.

(10) This agreement, duly signed by the members of the respective commissions of New York and Massachusetts, shall remain in force for a period of five years from May 1st, 1915.

## FEDERAL LEGISLATION TO PREVENT THE IMMIGRATION OF ALIEN INSANE.

The importance of this question has already been brought to the attention of the Association and a committee appointed for the purpose of cooperating with other organizations with the object of obtaining federal enactments which will relieve many of the states involved of the tremendous burden. After a thorough investigation by a special commissioner, it has been found that approximately 9000, or over 27 per cent, of the 33,000 patients in our civil state hospitals, are not residents of New York State nor citizens of the United States. This means an expense to New York which approximates \$1,890,000 per annum at the present per capita cost of care. A careful statistical study has shown the average hospital life of the insane in the New York State hospitals to be approximately ten years. Based on this method of determination, the estimated cost of caring for the present alien population would reach the astonishing total of over \$18,000,000.

The following amendments to federal laws, which have been recommended by the committee referred to above, should be supported by the representatives of every state if we are to obtain any relief from this situation :

1. Providing that medical officers of the United States Public Health Service who have had special training in the diagnosis of insanity and mental deficiency shall be detailed for duty at ports of entry designated by the Secretary of Labor and that the services of interpreters and suitable facilities for making mental examinations and observing cases shall be provided for these medical officers.

2. Providing that the surgeon of each vessel shall make a mental examination of each immigrant before accepting him for passage. (A physical examination only is required at present).

3. Providing a fine of \$200 for bringing to this country any insane or mentally defective person whose condition could have been detected by a competent medical examination at the time of embarkation.

4. Adding constitutional psychopathic inferiority and chronic alcoholism to the excludable causes.

5. Making it mandatory for the Secretary of Labor to provide suitable attendants for immigrants being deported, when they require personal care on account of mental or physical disability.

6. Increasing from three to five years the period in which deportation of aliens who have become a public charge in this country can be effected—

unless it can be affirmatively shown that their dependence is due to causes arising subsequent to landing.

7. Providing that deportation can be effected subsequently if proceedings are *instituted* within five years.

#### NECESSITY OF A BOND ISSUE FOR THE PURPOSES OF CONSTRUCTION.

The large amounts of money now needed for construction as a result of the rapid growth in the insane population should not be charged to the appropriations rendered available by the legislature of any state for a given year. The erection of buildings in new institutions for the care of the insane results in a permanent increase in property value, the cost of which should be distributed over a period of 20 or 30 years. The usual method of including the cost of such construction in the annual budget places an unfair burden upon the taxpayers. The excellent example which has been set by Massachusetts in solving this problem should be followed by other states.

It will be noted that the problems discussed here are almost without exception financial in character. While this is true, it is equally worthy of observation that the remedies suggested are fully in accord with the most advanced teachings of modern psychiatry.



## THE DEVELOPMENT OF DETACHED WARDS AT THE KANKAKEE STATE HOSPITAL (1880-1890).

### THE GENESIS OF THE MOVEMENT FOR SEGREGATED CONSTRUCTION.

(A FEW PAGES FROM THE HISTORY OF THE HOSPITAL.)<sup>1</sup>

BY RICHARD DEWEY, M. D., WAUWATOSA, WIS.

### FIRST SYSTEMATIC DEPARTURE IN THE UNITED STATES FROM CONGREGATE CONSTRUCTION.

It is necessary to recall briefly the *status* and tendency of opinion and action with reference to the insane in the sixties and seventies of the last century in order to appreciate the circumstances which led to the adoption at Kankakee (1879) of a system of completely detached wards and which originated a movement that had somewhat far-reaching results in influencing construction for the insane in several states of the Union.<sup>2</sup>

We can only refer here to the more or less immediate results of legislative action and trace the development of building plans as determined by laws enacted in Illinois which in their turn were related to legislation in other states, particularly New York.<sup>3</sup>

<sup>1</sup> One of the forthcoming series of histories of "The Institutional Care of the Insane in the United States and Canada" to be published this year by the American Medico-Psychological Association, under the editorship of Dr. Henry M. Hurd.

<sup>2</sup> The following circumstances may be noted as illustrating the direct effect. The Governors of Ohio and Indiana, each accompanied by a state commission and an architect or engineer, inspected the detached wards at Kankakee in 1883. Later the institutions at Toledo (capacity 1000), at Logansport (capacity 380), and at Richmond (capacity 400), all on the detached ward plan, were constructed. North Dakota employed Major Willett, architect at Kankakee, and in 1885 had 160 patients in three detached wards.

<sup>3</sup> Anyone interested in the views on building plans held at that period can find documents and discussions in the files of the *American Journal of Insanity*, and in the "Propositions and Resolutions" collected and published in 1876 by the Association of Superintendents; also the reports of the Boards of Public Charities of New York, Massachusetts, Pennsylvania and Illinois (the only State Boards of Charities in existence up to 1869).

The report for 1884 of the Illinois Board of Public Charities, Chapter III, page 65, has a very full *resumé* of the subject from the pen by Secretary Fred. H. Wines.



The Act of 1877 creating the state hospital, later located at Kankakee, provided that the State Board of Public Charities should have the power of approval or disapproval of any building plans that might be adopted. This provision of the law really committed the matter into the hands of a single man. That man was the secretary of the board, Rev. Fred H. Wines. The State Board of Public Charities had been created and organized and Mr. Wines was chosen as its secretary in 1869. In the same year the act for the new hospital, later located at Elgin, was before the Legislature. A clause was inserted in this act through the efforts of Mr. Wines which would have enabled the trustees of the new institution to adopt the so-called "cottage system" had they so elected, but no action in this direction had been taken up to 1877. Therefore in 1877, when the new Eastern Hospital was created, Mr. Wines procured the insertion of a clause in the appropriation bill which made the approval of the Board of Charities to any building plans which might be adopted at Kankakee *obligatory*.

Mr. Wines had become a convinced advocate of the "segregate" as distinguished from the "congregate" style of construction for the insane. The provision of the law above referred to made him the arbiter of the plans for that institution, and he acted the part in an original and forceful way. Mr. Wines, formerly a Presbyterian clergyman at the State Capital and during the Civil War a chaplain in a Missouri regiment on the Union side, had become secretary of the State Board of Commissioners of Public Charities at the request of Governor John M. Palmer. It was a case of the office seeking the man. He was a brilliant writer and speaker, a man of broad sympathies and humanitarian motives. He was also possessed of a grasp of economic principles and administrative details, unusual for a clergyman. He had familiarized himself with the question of further provision for the insane in Illinois and in other states, and his study of the problems involved had made him an advocate of greater freedom and elasticity in constructive and administrative matters.

The situation at this time with regard to the insane was such as to arouse anxiety in the public mind. While the nation had been absorbed in the Civil War, a great accumulation of this class as public charges had taken place throughout the land, and when this fact seemed to come to light all at once, the people rather suddenly

became aware of a heavy burden and menace. Little consideration had previously been given to the insane in any respect and now public attention was forcibly drawn to the problem of providing for vast numbers of such unfortunates. Various states confronted with this question had attempted to meet it by erecting new institutions or adding to old ones. Millions had been poured out in this way with the result that institutions were no sooner provided than they were filled to overflowing and still hundreds remained unprovided for in the almshouses and jails. All these institutions had been built upon the congregate plan of construction and had cost from \$1000 to \$1500 for each patient accommodated; indeed in some instances \$3000 and even \$4000 had been expended per capita for every individual that could be received. It began to be seen that this state of things could not continue, and many expedients for relief were proposed. The question of separation of the acute from the chronic insane came up and a controversy resulted between those, on the one hand, who insisted that chronic cases should be separately and more cheaply provided for; and those, on the other, who averred that it was a vicious principle to separate the insane into curable and incurable classes. Furthermore advantages were to be derived both to the acute and chronic by their association under proper conditions of classification.

The plan of separation however prevailed for a time, as in a notable instance in the state of New York, where the "Asylum for the Chronic Insane" at Ovid (named later in honor of Dr. Willard) came into existence. In 1866 Dr. George Cook of Canandaigua presented at the Washington meeting of the Superintendents' Association a paper on "Provision for the Insane Poor of the State of New York," advocating separate provision for the chronic insane, a policy which was strenuously opposed by the general sentiment of the association, as shown by the debate which followed. The only policy on which the association would agree was that of providing for all the insane, buildings of a congregate type, built in conformity with the "propositions" of 1851 and 1852.<sup>4</sup>

The instructive facts for our present purpose about the buildings later constructed at Ovid were that the cost of them was only

<sup>4</sup> Propositions and Resolutions of the Association of Med. Supts. of Am. Institutions for the Insane, pub. by Asso., 1876.

about \$500 for each patient accommodated—less than one-half the amount previously customary; and that they were in reality “detached wards,” though each of a capacity of several hundred patients and built upon the linear or congregate plan.<sup>5</sup>

Returning now to the inception of the institution at Kankakee, we find that all these problems of cost of buildings and of separation of the acute and chronic classes had been carefully studied by the Board of Public Charities of Illinois and by Secretary Wines. The opinion arrived at, as expressed in their report,<sup>6</sup> was “that the classification demanded (for the insane as a whole) was not in separate wards of one building, nor in separate institutions (for acute and chronic), but in separate or detached buildings for the care of both recent and chronic cases in a single institution under a single head.”

The genesis of the departure from congregate buildings can now be further shown. A great task was before the state of Illinois, as before all the states; namely, that of providing quarters decent and reasonable in cost for thousands of insane. Expense of construction must be reduced. All must be taken care of; the so-called acute and chronic cases must not be separated, since there was no knowledge attainable for determining concerning a large majority, which were and which were not curable, and the fact that the association of the two classes under proper conditions of classification not only need not be harmful, but might be beneficial. The “congregate” style of building had prevailed in this country and the men in authoritative positions and expert in these matters united in the opinion that further extension in providing for the insane must be upon the same lines. When in 1869 the appropriation was made for a new institution in Illinois and the plans were under consideration, the newly-created Board of Charities issued a call for a conference at which the views of three superintendents were presented—Dr. Andrew McFarland, then superintendent of the State Hospital at Jacksonville; Dr. R. J. Patterson of Illinois and Dr. Woodburn of Indiana. An extensive correspondence had also been held with the leaders of thought in this direction throughout the country.

<sup>5</sup> Later additions were two and one-story buildings; an entire departure from the congregate plan.

<sup>6</sup> Report of Board of Public Charities of Illinois, 1884, p. 81.

There seemed to be a crystallization of two opposed opinions; one party held that buildings approximating more to the "house" than to the "institution" type should be adopted; the other that the "central building with wings" should be adhered to under all circumstances. Dr. McFarland expressed himself at the meeting above referred to as follows:

The present system of architectural construction adapts the entire institution to the demands of its smallest and worst class, while for the great majority all these appliances are utterly unnecessary. We need more of the element of home life. I would not abolish the old form of institution. The two systems may exist side by side. I would have the central hospital in the foreground. At a little distance I would have a group, not of cottages; they should be houses of two stories in height. Under this system, the facility of extension would be great. Classification would be more complete.<sup>7</sup>

Mr. Wines, in stating the case for detached construction, in the report of the board for 1882, employed the following language (p. 112):

To Dr. McFarland, therefore, more than to any other man, belongs the credit of planting the germ which has developed into the hospital at Kankakee. His words passed unnoticed at the time, but they made a deep impression upon the State Board, and especially upon its secretary, Mr. Wines, in whose brain they ultimately took practical shape.

A resolution was adopted at the meeting (above referred to) to the effect that a combination in insane asylums, as far as practicable, of the "cottage system" with that at present in vogue is desirable.<sup>8</sup>

There was no immediate result from this meeting, or from the discussion and declaration of principles, but they bore fruit later in 1877 and '78, when the Kankakee Hospital was under construction. The trustees of the new institution hesitated to take the responsibility of a radical innovation in construction, but consented to accept a plan which was so devised as to admit of development

<sup>7</sup>Report Board Public Charities, Illinois, 1882, p. III.

<sup>8</sup>In the preceding year at the meeting of the Western Association for the Promotion of Social Science in Chicago, Dr. McFarland had read a paper entitled "What Shall be Done with the Insane of the West?" in which he said: "A single type has given impress to all our institutions. The radical fault of this system is that the individuality of the subject is stifled and lost. Insane asylums must be as it were decentralized." Report Board Charities, Illinois, 1884, p. 83.



upon either congregate or segregate plan and to leave it to the next General Assembly to decide whether detached buildings should or should not be constructed. In the year 1878 Secretary Wines, being delegated by the state to attend the Prison Congress at Stockholm, was able to study European institutions for the insane, and was further convinced of the practicability of the "detached ward." On his return he submitted to the Legislature a report which resulted in the first appropriation for detached buildings at Kankakee. In the session of 1879 the sum of \$30,000 was appropriated which was to be used to accommodate 100 patients in three separate buildings. The legislative approval for which the trustees had waited was thus given for the first time to the "detached ward" idea.

It now became necessary to prepare plans for "detached wards" and to study the development of an institution on these lines. The attitude of mind in which the undertaking was approached may be understood from the following quotation:<sup>9</sup>

The foundation of this experiment was laid in fear and trembling. The so-called "cottage system" of organization of hospitals for the insane had been for many years a topic of discussion among theorists, but the general sentiment of that branch of the medical profession engaged in the actual care of the insane was adverse to it.

The Board of State Charities, in justifying its efforts and in the assumption of responsibility for building plans, made the following claim with some show of reason:

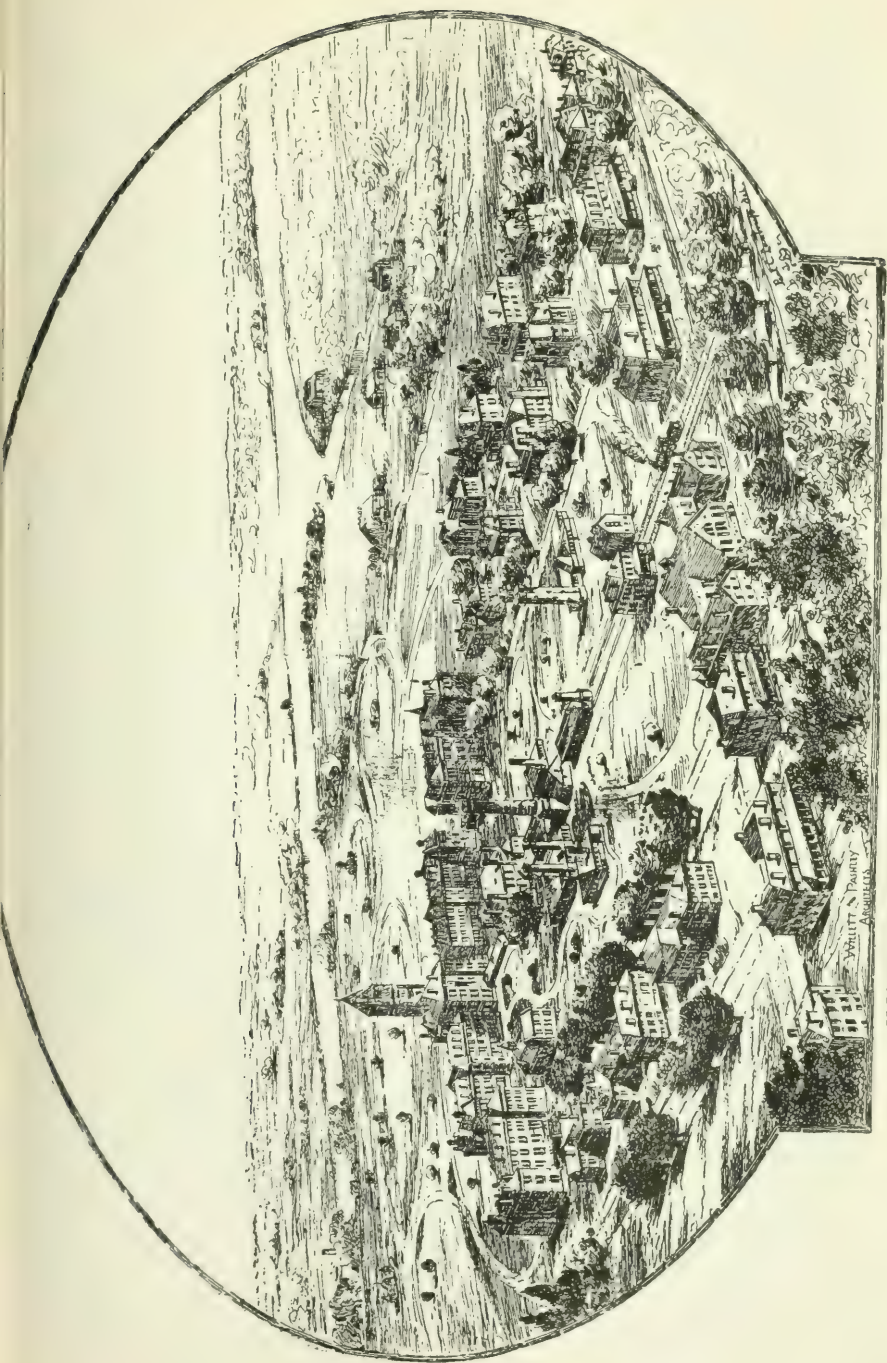
We are familiar with the conditions of the insane in the county almshouses. If the superintendents of hospitals can claim for themselves peculiar knowledge of insanity from the medical point of view, we too may claim a peculiar knowledge of the insane from the administrative and governmental point of view, gained by observation outside as well as inside the state institutions. In planning the institutions at Kankakee we had especially in mind the chronic incurable cases, who are inoffensive and harmless; who do not require locked doors or barred windows, and who can sleep in large associated dormitories.<sup>10</sup>

We have thus described the genesis of the movement for "segregation" in Illinois (1880-1890), and now adverting briefly to one or two additional important circumstances, will hasten to present

<sup>9</sup> Report of Board of Public Charities, 1882, p. 111.

<sup>10</sup> Report Illinois Board Public Charities, 1882, p. 115.





ILLINOIS EASTERN HOSPITAL FOR THE INSANE, KANKAKEE

All buildings shown are completed and in use. Begun in 1878. Present capacity (1887), 1600 patients. Material of all buildings either stone or brick. The main building is fire-proof throughout. The total cost of the institution to date for every expenditure, except running expense, amounts to an average for each patient accommodated of \$754.50. The average cost per patient to date on construction account alone (excluding cost of furniture, land, etc.) is \$590.18.

the concluding paragraphs of our history, summarizing the experience gained at Kankakee.

#### NON-PARTISAN BOARD OF TRUSTEES.

It is worthy of note here that the unusual conditions as to party control prevailing in the Legislature at the time the institution was organized led to the appointment by the Governor of a "non-partisan" board of trustees. There were, therefore, two Republicans and one Democrat upon this board of three members, and in the light of subsequent events, this may be regarded as fortunate, since partly in consequence of the minority representation and partly by reason of the disposition of all three members of the board to ignore partisan politics and to hold the superintendent alone responsible, civil service principles were consistently maintained during the 14 years' service of the first superintendent.<sup>11</sup> This fact had an important bearing upon the development of the institution, as it enabled the administration to be free from all political interference.

A plan of the grounds and buildings and bird's eye view are herewith presented, which, although they give the actual stage of development ultimately reached (1888), nevertheless show better than a verbal description the ideas which were decided upon at the outset.

#### CONCLUSION.

As the hospital at Kankakee was avowedly a departure from methods previously prevailing in architectural construction and was administered with the purpose of putting to the test certain progressive ideas, a few words may be given in conclusion as to the results attained.

<sup>11</sup> The writer having been the first superintendent, well remembers one of his first official acts—the securing of a carpenter. After thorough inquiry, the man found by all odds best qualified was selected, but when later the appointment became known to the local "boss" of the political "machine," a period of consternation ensued, and the superintendent discovered that he had appointed a *Democrat* instead of a *Republican* carpenter. In local political circles this was felt to be a serious blunder. There was no interference with the appointment, however, and that same good craftsman remained in full exercise of his functions until 14 years later, when a new Governor (Altgeld) decapitated all the boards of trustees, in order to secure at each institution a superintendent who would do his bidding.

Was the more domestic style of construction, the so-called cottage or detached ward, successful, and did it win general approval?

This question is answered by results immediate and remote, so well known as to require but the briefest statement. This more simple, segregated and less expensive style of architecture employed in the detached buildings at Kankakee as a substitute for the many-storied congregate "central building with wings" (previously considered necessary) was given immediate recognition and is accepted to-day as a matter of course. The change in constructive ideas had begun in a rudimentary way before Kankakee existed and would doubtless have developed in any event, but Kankakee served as an impetus, a point of departure and an object lesson. Ohio, Indiana, Dakota, New York at Ogdensburg and Central Islip departed from the congregate "central building with wings," after the experimental stage had been passed and all frankly availed themselves of the experience here recorded.<sup>12</sup>

Later Massachusetts, the general government at Washington, D. C., Canada at Mimico, near Toronto, and many other states and municipalities built extensively on the detached plan. Illinois continued to extend in the same line as shown at Peoria and also in the resolution of the Board of Public Charities adopted in 1909, "to use the cottage plan for new institutions."<sup>13</sup>

The *Illinois Quarterly* of June, 1914, in reporting the visits of the State Board of Administration to institutions in New York, Washington, D. C., Maryland, Ohio and Indiana, remarks: "The new institutions and the additions to the old are all on the 'cottage' plan. The cottage plan hospital at Kankakee, the first of its kind in the world, has served . . . during these years to demonstrate the foresight of its designers."<sup>14</sup>

It may, however, be truly said that *individuality* rather than any stereotyped form of building resulted from the experience at Kankakee. The truth which came to recognition there was *freedom* in construction. It was established as a fact that the insane can be well cared for in any good building and that the

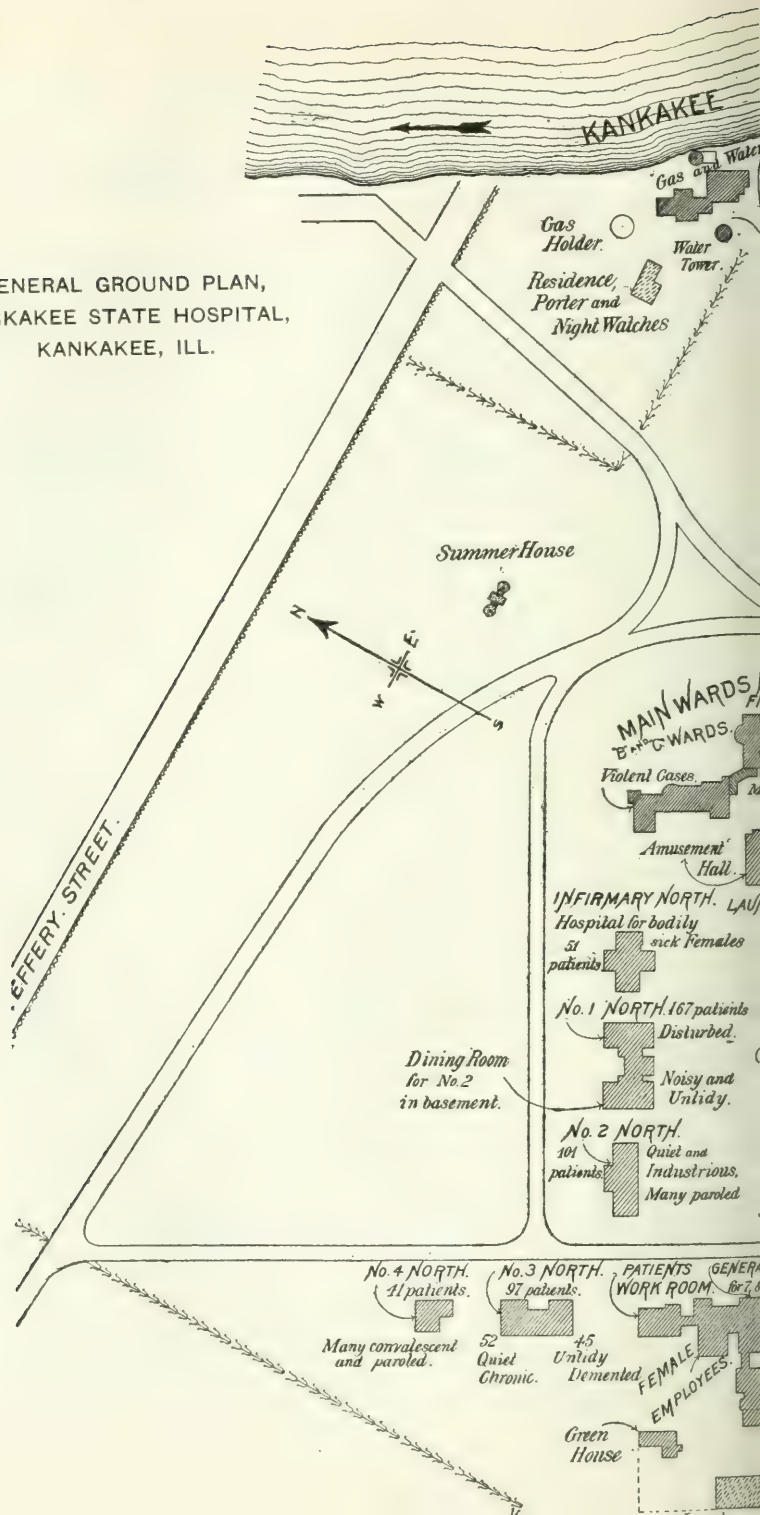
<sup>12</sup> For details see the biennial report of the Kankakee Hospital for '86, '88, '90, '92.

<sup>13</sup> Report for 1909.

<sup>14</sup> *Institution Quarterly*, June, 1914, p. 60.



GENERAL GROUND PLAN,  
KANKAKEE STATE HOSPITAL,  
KANKAKEE, ILL.



The diagram is a detailed floor plan of the Kaiser War Relocation Authority Hospital. At the top, the Kankakee River flows horizontally, with a Summer House located on its right bank. A road or path runs along the river, featuring a Gas Holder, Water Works, Residence, Porter and Night Watches, and a Water Tower. A compass rose indicates North (N) and East (E). The central part of the plan is dominated by the MAIN WARDS AND ADMINISTRATIVE BUILDING, which is FIRE PROOF and has a THROUGHOUT. This building is divided into several sections: B & D WARDS (Potent Cases), A WARDS (Mild-many acute cases), and C WARDS (Violent Cases). Below these are the INFIRMARY NORTH (Hospital for bodily sick females), AMUSEMENT HALL, KITCHEN, BAKERY, ENGINE ROOM, ENGINEERS SHOP, PROJECTED SHOP FOR PATIENTS, BOILER ROOM, BATH HOUSE MEN, DINING ROOM for 1, 3, 5, FIRE DEPARTMENT, DINING ROOM for 15 old feeble lame, and a REFRIGERATOR. To the left of the main building are the INFIRMARY SOUTH (Hospital for bodily sick males), NO. 1 NORTH (167 patients, Disturbed, Noisy and Un tidy), NO. 2 NORTH (101 patients, Quiet and Industrious, Many paroled), NO. 4 NORTH (91 patients, Many convalesced and paroled), NO. 3 NORTH (91 patients, 45 Un tidy Chronic, Demented), and a GREEN HOUSE. To the right of the main building are the RELIEF WARDS (36 patients, Mithimus Cases, Mild Epilepsies, Epileptic and Paralytic Dements), NO. 2 SOUTH (39 patients, Mild, industrious, some paroled), NO. 4 SOUTH (48 patients, many unable to go out to meals), NO. 6 SOUTH (36 patients, Mild, mostly chronic), NO. 10 SOUTH (107 patients), NO. 9 SOUTH (102 patients), NO. 8 SOUTH (162 patients, 48 patients, 100 paroled and 62 un tidy), NO. 7 SOUTH (48 patients, 100 paroled and 62 un tidy), and NO. 5 SOUTH (42 patients, for 15 old feeble lame). Other facilities include a COAL HOUSE, BUSINESS OFFICE, SUPPLIES, and a LUMBER area at the bottom. A compass rose also indicates North (N) and East (E) in the lower left quadrant.

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...*



spirit pervading the buildings is even more important than their outward form. Bound up with the freer construction are elements of freedom in other points. No one would object to less rigorous and more indulgent management for the patients provided this were compatible with safety and economy. This was the point to be tested—order, efficiency, industry and economy must accompany the giving of greater indulgence and privileges to the patients.

The first report of the medical superintendent in 1880 contained the following statement of the purposes kept in view at Kankakee:

This hospital, while seeking the good results usually accomplished by such institutions, is especially committed to a course of careful experimentation and effort in the direction of determining:

First. How moderate the expense of erecting suitable buildings for the insane can be made.

Second. Whether occupation which will be beneficial in every sense cannot be secured for a majority of the inmates.

Third. To what extent the rigor of confinement and restraint can be removed and a natural and somewhat domestic mode of life be introduced among our patients.

#### COST OF CONSTRUCTION.

And first referring to the cost of buildings, it had been, as is well known, the general experience prior to 1880 that the cost of the congregate style of building throughout the country had ranged from \$1000 per capita up. In many instances, double and even treble this amount had been expended for every patient accommodated. One notable exception had attracted attention. This was the greatly reduced cost of the additions made by Dr. Chapin to the Willard Asylum at Ovid, N. Y. Some of these additions had been built for \$500 per capita, not including, however, the cost of the general service buildings, land, furniture, etc. These buildings were still, however, on the congregate plan.

At Kankakee, in 1883 and 1884, detached buildings for 1000 patients were completed for \$400 per capita, including furniture. The total per capita cost at Kankakee when a capacity of 1600 had been reached was \$754.50. This figure, however, included the congregate fireproof main building for 300 patients, which alone had cost upward of \$1000 per capita. It also included cost for the institution as a whole; of land, service buildings, furniture and every expense in fact, except actual running expenses. These

latter items are, as is well known, not usually included in reckoning per capita expense in general. Hence, a notable reduction in expense of construction is seen at Kankakee. It is also true that still further extensions at Kankakee continued to lower the proportionate expenses.

Thus a reduction in building expense bordering upon 50 per cent is shown, which is a realization of one of the aims at Kankakee above mentioned.

#### INCREASE OF EMPLOYMENT.

Coming now to the question of occupation for the insane, it is to be said the development of Kankakee showed an expansion in industries of many sorts, and a percentage of employment not hitherto attained or reported so far as known. Something of the variety of industries is shown in the preceding pages, and in the record (presented as an appendix) of the articles made in the year ending June 30, 1891. This would not be an unusual record at the present day, but at that time was a distinct advance. The record of general percentage of employment was accurately kept from the beginning, and steadily rose from 42 per cent in the first biennial period to 57 per cent in 1888, 68 per cent in 1890, and 73 per cent in the last period of the writer's superintendency (1892). This record was kept with accuracy, no person being counted twice, and only the actual number of hours' work was reckoned, whether given to only one or to several kinds of work.<sup>18</sup>

In this connection, it is also to be noted that in the period under discussion, the running expense of the institution per capita generally averaged lower than any other of the Illinois state hospitals, as shown by the annual comparative statements of the Board of Charities.

#### INCREASE OF PRIVILEGES AND LESSENING OF RIGOR OF CONFINEMENT AND RESTRAINT.

Now taking up the question of increased privileges to patients and removal to some extent of the "rigor of confinement and restraint," and the introduction of a "natural and somewhat domestic mode of life," we may refer first to the record of open wards and of patients on parole which exceeded in that day the

<sup>18</sup> See tables of employment biennial reports 1880-1892.

records of other institutions. Indeed, the limits of parole and of privileges were not determined by the limit of numbers of patients to whom such privileges could be extended with safety, but by other considerations of the welfare of the patients themselves.

The diffusion of a homelike atmosphere and the promotion of amusements and employment were an important part of the effort to give greater contentment and satisfaction to these persons, and of course what was accomplished in non-restraint (see complete history) comes under this head. In this direction, the effect also of living in a "house" rather than a "ward," of going and coming to meals, to work and to entertainments more as people do in the outside world must have been seen or experienced to be appreciated.

Finally, we may refer to the *status* in the present year (1914) described on another page, showing that 1000 patients were on parole, that there were 12 "open" cottages never locked during the day, and without bars or screens at windows. Ten male wards were in charge of women nurses. Eight hundred of the most demented patients were taken to a weekly picture show. In two months there had been no seclusion and only one case of mechanical restraint among over 2000 patients.

Reference should here be made to two other factors of progress instituted in the earlier years. 1st. The training school for attendants established in 1886, when but four other such schools were in existence, and which up to March, 1893, had sent out 130 graduates (women, 66; men, 64). 2d. The system of records and reports whereby all mechanical restraint employed was accurately reported and recorded and whereby such restraint was brought near to the vanishing point (see biennial reports from '80 to '92).

The reader is now, I hope, in a position to form his own opinion concerning the institution at Kankakee, and in closing my account, as the individual through whom this institution's plans and progress were carried out in its formative years, I desire to pay a tribute of honor to the memory of Frederick Howard Wines. His ability and force of character were the originating and sustaining power in the inception of "segregated" construction at Kankakee, as opposed to the "congregate" style previously prevailing. His ideas, ably and eloquently presented, were the source of much that was new and valuable in the evolution of greater freedom, adaptability, intelligence and efficiency in constructing and organizing institutions for the insane in the United States.

## RECENT EXTENSION OF OUT-PATIENT WORK IN MASSACHUSETTS STATE HOSPITALS FOR THE INSANE AND FEEBLE-MINDED.

By L. VERNON BRIGGS, M.D.,

*Member and Secretary of the Massachusetts State Board of Insanity,*

AND

A. WARREN STEARNS, M.D.,

*Assistant to the Massachusetts State Board of Insanity.*

The present State Board of Insanity was appointed in August, 1914, and within a week it took up the question of extending the out-patient work of each state hospital throughout the districts which the several hospitals covered.

The School for the Feeble-Minded had for 25 years held a clinic at its hospital; the psychopathic department of the Boston State Hospital had been holding out-patient clinics since it opened in 1912; and the Danvers Hospital had made plans for out-patient service.

In establishing a policy which would affect all institutions for the insane and feeble-minded, it was the intention of the board to stimulate each hospital to "reach out," as Dr. Adolph Meyer once said, "into the community and be responsible for the mental health of the community or district which it covers." The board voted that each hospital then doing out-patient work should extend the same along the general plan outlined for all the institutions, that the work might be uniform, and that those institutions which had not been doing any out-patient work should, at the earliest possible date, establish out-patient departments and out-patient clinics in the several large cities in their own district, preferably in the evening, when patients needing such advice could conveniently attend without interfering with their duties or jeopardizing the positions which they might hold. This would also enable the staffs of the hospitals to hold clinics without interfering with their hospital work. The board felt that these clinics could be started without an increase of expense or an increase in the staffs,



as members of the staffs would appreciate the opportunity to see early cases, work along the lines of prevention, and also to see discharged patients, thereby keeping track of them.

Some hospitals already had after-care or social-service workers. All hospitals were urged to take on such workers who should be present at each clinic. It was hoped that the out-patient departments would eventually cover the work of the clinics, the after-care or social-service work, mental hygiene and boarding out. It was also hoped to stimulate the discharge of cases earlier than had before been possible, for many suitable patients could safely be sent out if clinics were established in or near the town or city where they resided. The after-care or social worker would be glad to get in touch with new cases who first came to the clinics, would see the discharged cases or look them up if they did not report, and often be able to interview members of the families of patients in the hospitals who could come to the clinics but who could not conveniently come to the hospitals.

The board believed that the out-patient department would be the first important step for the prevention of mental disease in this state, and that the supervision and after-care of patients would prevent the return of many who had been discharged. Out-patient departments are not alone for medication and treatment, but also for education and for the interpretation of the functions of the great state hospitals. A comparison may well be made here with the public health center idea. Formerly the responsibility for the supervision of the boarded-out patients had been centralized in the State Board of Insanity. The board began in August, 1914, to decentralize this supervision, placing the patients in their own districts under the supervision and immediate care of the hospitals, each hospital assuming the responsibility for the patients in its district.

On September 30, 1914, Taunton State Hospital had 11 patients boarded out in family care; Northampton had 24 patients; Westborough, 3; Boston State Hospital, 1 patient; a total of 39.

On April 1, 1915, Worcester State Hospital had 38 patients boarded out in family care; Taunton had 43 patients; Northampton, 28; Danvers, 6; Westborough, 45; Boston State Hospital, 28; Medfield, 32; Gardner State Colony, 23; 243 in all.



# OUTLINE FOR OUT-PATIENT WORK AT MASSACHUSETTS STATE HOSPITALS.

Hospital (out-patient department).	Clinic .....	<p>Examination and treatment of all pre- and non-hospital cases, such as psychoneuroses, alcoholics, syphilitics and mild insane.</p> <p>Diagnosis of feeble-minded.</p> <p>Training for practicing physicians in mental disease.</p> <p>Examination of special cases for courts, physicians and social agencies.</p>
	After-care work .....	<p>Systematic follow-up work, such as interviews with patient and family before discharge, supervision when discharged, employment aid, return to clinic at hospital when advisable.</p> <p>To take out-patients from other hospitals if in district.</p>
	Boarding-out work .....	<p>Study of hospital cases, investigation of future boarding places, supervision of patients boarded out in district, co-operation with state boarding-out system.</p>
	Mental hygiene and prevention ..	<p>Education of medical and lay public in matters relating to prevention of insanity. Care of insane by state or community.</p> <p>Eugenics, alcohol and syphilis problems.</p> <p>Scope of state work in general.</p>

## ORGANIZATION OF OUT-PATIENT STAFFS.

Medical head of out-patient department..	Medical assistants ...	<p>Doctors and internes or medical students and psychologists from hospital or community, especially practicing physicians in neighborhood to work in clinic.</p>
	Social service..	<p>Paid and volunteer workers to work in clinic and out, with an after-care and boarding-out worker.</p>
	Clerks .....	<p>Historian and stenographer and record clerks, to work in clinic and also in clerical part of other work.</p>

At the end of about one month, or on October 1, 1914, 417 persons had attended the clinics. Danvers State Hospital had opened clinics in Haverhill, Lawrence, Gloucester and Lynn. The superintendent, assistant superintendent and social worker attended each of these clinics.

Worcester State Hospital opened a clinic on September 1, with a total of 15 patients attending the first month; and the Psychopathic Hospital had 358 persons visit its clinics during the month.

At the end of seven months, or on April 1, virtually every part of the state was covered; clinics had been opened by the Worcester State Hospital at Worcester and Spencer; Taunton State Hospital at Taunton, Fall River and New Bedford; Northampton State Hospital at the hospital, at Springfield, Greenfield and Pittsfield; Danvers State Hospital at Lawrence, Gloucester, Haverhill, Lynn, Salem and Newburyport; Westborough State Hospital at the hospital and at the Homeopathic Hospital in Boston; Gardner State Colony at Fitchburg and Winchendon; Monson State Hospital has clinics for epileptics; Massachusetts School for the Feeble-Minded at the school, at Worcester, Taunton and Fall River.

For the three months ending April 1, there was a total of 2536 visits, an average of 845 a month, for nine institutions. The number of first visits for this period was 671, or an average of 223 a month. At this rate, 2676 patients would be seen in a year, which is 72 per cent of the total number of commitments as insane for the year ending September 30, 1914. These figures indicate, however, that this number would probably be considerably larger at the close of the year.

Cases have been referred to the clinics by physicians, by other hospitals, by charitable and other organizations, by the courts, by schools, some have come on their own initiative, and many discharged patients have reported at the request of the hospitals.

The following is a copy of the form for report rendered each month by the out-patient departments:

## REPORT OF OUT-PATIENT DEPARTMENT.

.....STATE HOSPITAL.

FOR THE MONTH OF.....

*Clinics:*

	Males.	Females.	Totals.
Total number of first visits .....	....	....	....
Total number of visits by all patients.....	....	....	....
Number of different patients.....	....	....	....
Sources of first visits:			
Referred by physicians .....	....	....	....
Referred by other hospitals .....	....	....	....
Referred by charitable and other organizations .....	....	....	....
Referred by courts .....	....	....	....
Referred by schools .....	....	....	....
Came on own initiative... ..	....	....	....
Cases discharged from this hospital reporting for first time .....	....	....	....
Miscellaneous and unknown .....	....	....	....
Total .....	....	....	....

*Clinics held:*

Hospital. Day and date. (If regular days, give such with hours.)

At other places. (Give city or town, place and date, with total patients,  
first visits and total after-care cases reporting for such.)

New clinics established. Where and when?

*After-care:*

Total number of patients leaving hospital.....	....
Total number discharged to after-care.....	....
Total number of visits by social worker.....	....
Total number of patients visited by social worker.....	....
Total number of patients on visit.....	....

*Boarding-out:*

Total number boarded out by hospital.....	....
Total number placed this month.....	....
Total number returned this month.....	....
Total number visited this month.....	....

*Mental Hygiene:*

Lecture or talk by member of hospital.....	....
Public meetings under auspices of hospital.....	....
Any other activities with exhibits, sales, etc.....	....

*Remarks:*

The social-service worker is proving an important factor in the thoughtful discharge of patients; for example, in one of our state hospitals a patient under consideration for discharge is held until a report has been received from the social-service worker of the home conditions or environment into which the patient must return. In other words, the medical and social elements are considered in every discharge.

The problem of the feeble-minded has had special attention by the opening of clinics in different parts of the state. The attendance at these clinics of patients and physicians seeking advice has been so great that the staff physicians have been obliged to turn some away, owing to the length of the clinic and the mental fatigue of the examining physicians.

Another extension of the hospital work is the wider public cooperation effected by meetings of medical societies held in the hospitals, and talks on modern care and treatment of the insane and the relation of the state hospitals to the public, by members of the hospital staffs at medical and other public meetings outside the hospital.

An interesting development has been the service rendered private physicians who have sought advice of the out-patient staff for their own patients. One illustration will indicate the enthusiasm with which this movement has been received: After a hospital in the western part of the state had opened clinics in two cities in its district, the physicians of a third and important city petitioned the superintendent of the hospital to open a clinic in their city: and this was promptly done.

The hospitals are open to the public and may be visited daily, including Sunday.

At the end of seven months we can say that the out-patient department has proved a success and has met the fondest hopes of the board.

The number of physicians who attend these clinics is surprising; in some of the early clinics they out-numbered the patients. They are invited to bring their patients to the clinics, to consult with the physicians on duty at the clinics regarding patients they may have, with the hope of so caring for them as to prevent institutional treatment, if possible. The hospitals, medical societies and other organizations have gladly given space for the clinics free of charge, and the expense so far has been a negligible amount.

KEY TO MASSACHUSETTS STATE BOARD OF INSANITY  
MAP, SHOWING OUT-PATIENT DEPARTMENTS.

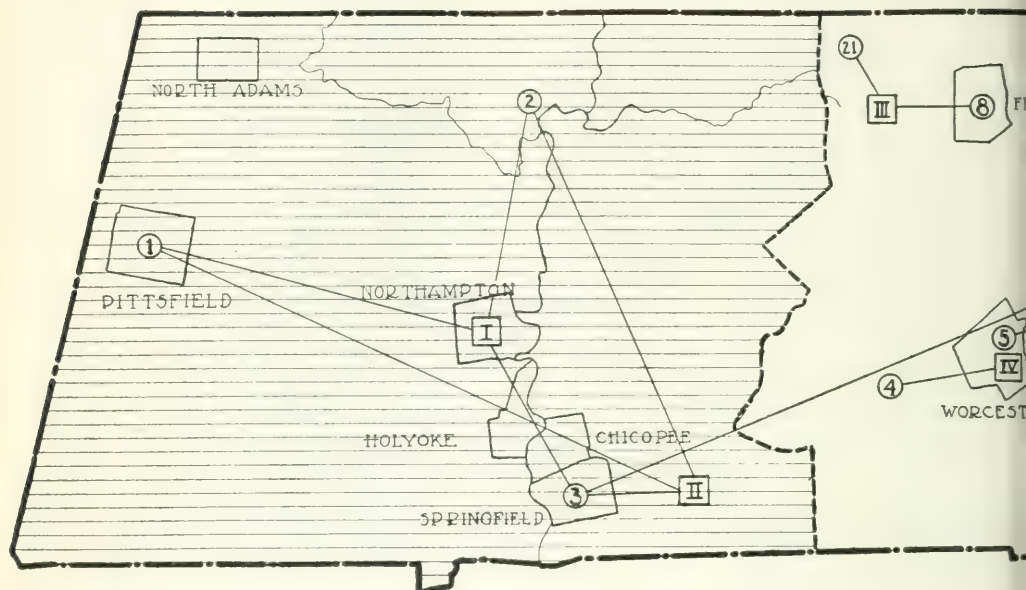
Districts indicated by parallel lines, oblique lines, oblique broken lines dotted surface and clear space.

- I. Northampton State Hospital, with clinics at Pittsfield (1), Greenfield (2) and Springfield (3).
- II. Monson State Hospital (for Epileptics), with joint clinics at Pittsfield (1), Greenfield (2) and Springfield (3).
- III. Gardner State Colony, with clinics at Fitchburg (8) and Winchendon (21).
- IV. Worcester State Hospital, with clinics at Spencer (4) and Worcester (5).
- V. Grafton State Hospital, with clinic at Worcester (6).
- VI. Westborough State Hospital (Homœopathic), with clinics at Westborough (7) and Boston (13).
- VII. Medfield State Hospital. No clinics.
- VIII. Wrentham State School. No clinics.
- IX. Taunton State Hospital, with clinics at Taunton (9), Fall River (10) and New Bedford (11).
- X. Bridgewater State Hospital, with clinic at Brockton (12).
- XI. Boston State Hospital, with clinic at Psychopathic Department (14).
- XII. Psychopathic Department, Boston State Hospital, with clinic at Boston (14).
- XIII. Massachusetts School for the Feeble-Minded, with joint clinics at Springfield (3), Worcester (5) and Taunton (9).
- XIV. State Infirmary at Tewksbury. No clinics.
- XV. Danvers State Hospital, with clinics at Lynn (15), Salem (16), Gloucester (17), Newburyport (18), Haverhill (19) and Lawrence (20).

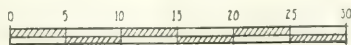
## DISCUSSION.

DR. HOUSTON.—I speak of this subject because we have undertaken at Northampton some of this clinical work mentioned by Dr. Stearns. As Dr. Stearns has said, this is not a new departure, but more properly speaking, an extension of work that all of us have been doing for years. We came to realize years ago that each hospital could serve its district best by not confining its attention solely to the people in the institution. We did this at Northampton by inviting persons who were mentally ill, or their relatives or family physicians, to come to the hospital for a consultation. Four years ago we employed on our staff a physician whose sole duty should be to go out into the community to attend to this out-patient work, giving ad-





# COMMONWEALTH OF MASSACHUSETTS STATE BOARD OF INSANITY PLAN SHOWING OUT-PATIENT DEPARTMENTS






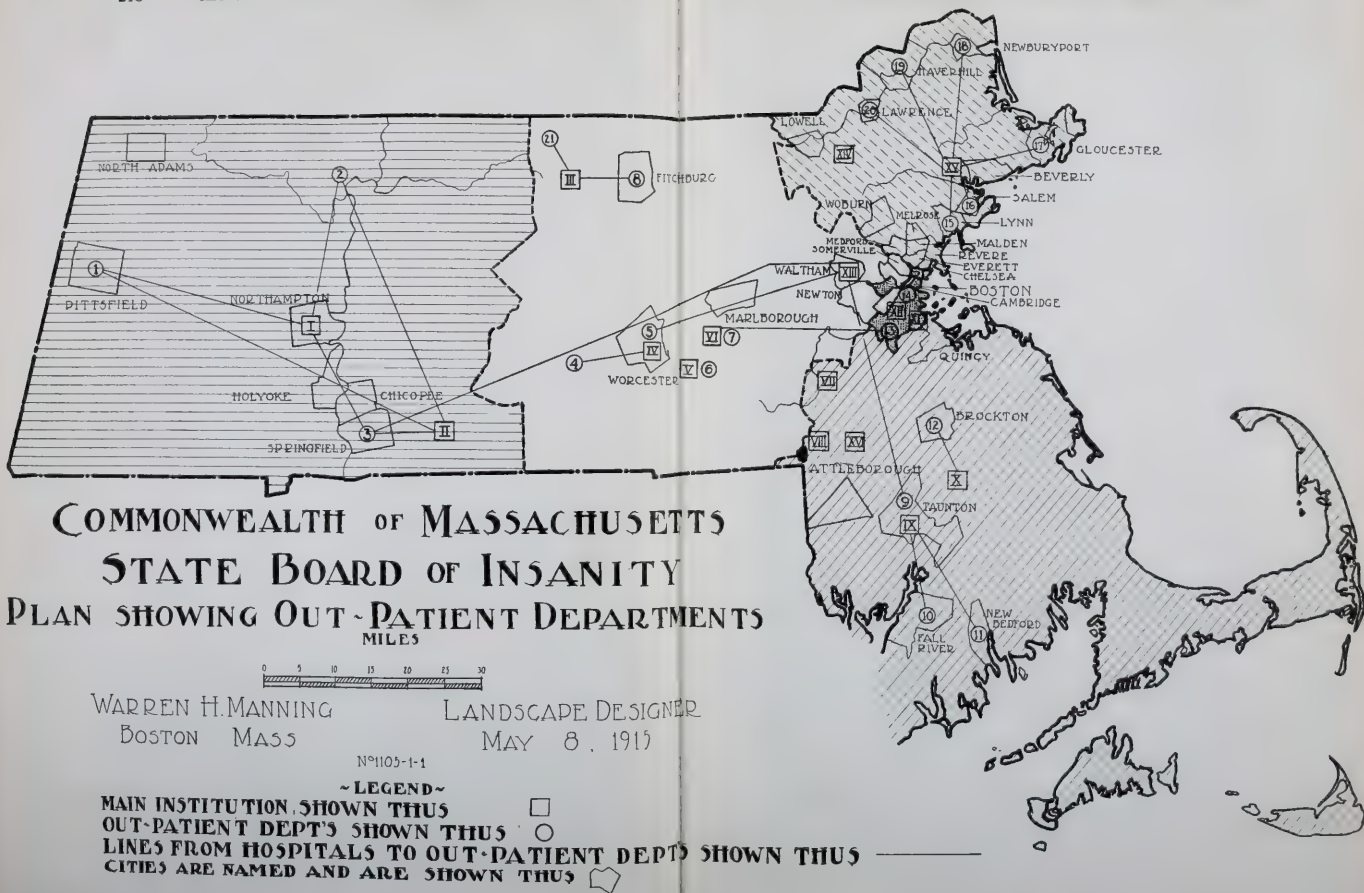
WARREN H. MANNING  
BOSTON MASS

LANDSCAPE DESIGN  
MAY 8, 1915

№1105-1-1

## ~ LEGEND ~

MAIN INSTITUTION SHOWN THUS   
 OUT-PATIENT DEPT'S SHOWN THUS   
 LINES FROM HOSPITALS TO OUT-PATIENT DEPT'S  
 CITIES ARE NAMED AND ARE SHOWN THUS 



vice and consultation where requested, to patients who had some apprehension lest they might become prospective patients, and also to patients who had left the hospital on probation, thus covering the after-care work along those lines. So that although these clinics were not regularly established until last fall, we had been doing that kind of work for years. Last fall we established clinics in Greenfield, Springfield and Pittsfield, the last named city being about three hours ride by rail from the hospital at Northampton. We have found them very advantageous to the hospital as well as to the people of the district. They are held at the local hospitals in the cities named, where we are cordially welcomed and we find that the physicians throughout the district heartily cooperate with us. We send notices by mail of the dates of these clinics—which are held on regular days of each month—to physicians, that they may bring any of their patients for consultation, and to relatives of patients in the hospital that they may come to see us and to inquire how their patients are getting along, also that they may give us a fuller history of the patient's case than we may have obtained when the patient was admitted.

Frequently the member of the staff who attends the clinic visits the home of some one of our patients at the hospital at Northampton, if near the place where the clinic is held, to make a report to the family of the patient's condition. This is much appreciated both by the patient and by his family; it establishes the hospital and its physicians on more friendly relations with the families of our patients, and also with the community. They feel that we are taking pains to show an interest in them.

Patients away from the hospital on parole report at these clinics. Former patients often visit them to see the doctor to express gratitude, and often to make inquiry of some patient still at the hospital.

Judges occasionally send persons to be examined, about whose mental condition there is some doubt, and charitable associations often bring young persons of both sexes to be examined as to their fitness to remain in the community, or as to the desirability of commitment to some institution for the insane or feeble-minded or defective delinquent.

Many neurasthenics and psychasthenics, and some who are insane, come of their own accord. Not infrequently some of the latter are persuaded to enter our hospital for a brief period, as voluntary patients.

DR. C. B. BURR.—At the staff conferences there are memoranda read and reports made by investigators, which result in throwing side-lights upon the histories of patients. Is this the bureau through which that is effected for the psychopathic hospital, or is that an independent bureau?

DR. A. WARREN STEARNS.—The psychopathic hospital started out to do its own investigation. Of course, there is cooperation between various clinics, but each hospital does its own investigation.

## STATE OWNERSHIP OF THE SPRINGS OF SARATOGA AND STATE CONTROL IN DEVELOPING AND UTILIZING THEIR FACILITIES.\*

By ALBERT WARREN FERRIS, A. M., M. D., SARATOGA SPRINGS, N. Y.

Imagine a plain 30 miles wide, extending from the Adirondacks to the Green Mountains, and about 30 miles from north to south, with the center of the plain encroached upon from the north by a wedge of a range of mountains tapering to a point, embosoming a lake nearly six miles long, whose outlet, flowing northward and then eastward into the Hudson River (which is but an incident to the topography of the region), courses through the eastern edge of this plain; the whole region well wooded with magnificent pine trees, diversified with groves of mountain ash hanging full of red berries, or birches with glistening white trunks, or smooth, gray-barked beeches, or shivering poplars, along the water courses; the lake teeming with fish, which also exist in large numbers away over in the Kayaderosseras Creek, that enters the plain from its extreme western side as a water-course originating in mountain brooks which gush down the sides of the last range of the Adirondack Mountains, this creek following a meandering course southward and then westward and finally finding its way into the lake. Imagine along the northern boundary of this plateau a number of Indian outposts consisting of tepees and rude structures of unhewn timber which sheltered small bands of young braves, the turbulent and warlike members of the Mohawk tribe which, in the main peaceful and domestic, inhabited this whole region, raising maize in the alluvial soil, catching fish which they dried and stored, and devoted to the delights of the chase. Imagine the wigwams of the tribe erected toward the southern

\* The address was illustrated by 66 colored lantern slides, portraying Saratoga Springs in former and modern times, with the diversions and distractions, facilities for out-of-door enjoyment in winter and summer, installation of apparatus and equipment of bath houses, and spouting springs available for drinking or allowed free range for scenic effect.



part of the plain with the facilities for the rude housekeeping of the aborigines, the women grinding the corn and preparing the meal, while the men engaged in agriculture or in the preparation of weapons, and pursued the arts of hunting. The old men were assigned to certain stations on the lake, where their duty was to chip arrowheads and spear heads out of the quartz rock that was brought to them, securing at rare times the valuable prize of a piece of native copper, passed from hand to hand from the Lake Superior region south into Illinois and thence eastward by barter, from tribe to tribe, until it reached the hands of these rude artificers, who fashioned it into much desired arrowheads. Thus is presented a picture of the Kayaderosseras tract as it existed many centuries ago, before the intrusion of white men upon the domain of the native American Indian, bringing with them the whiskey and the syphilis which rapidly decimated and finally destroyed the Indian nations. From time to time incursions were made by the Mohawks northward into the land of their enemies, the Algonquins, over the traveling trail leading directly north; or by boats up the Hudson River, across by portage to Lake George and northward through that lake and across by portage near Fort Ticonderoga into Lake Champlain, and northward through that great expanse of water into the St. Lawrence River; or northwesterly over the foot hills of the Kayaderosseras range of the Adirondacks and through a pass along the Sacandaga River, and thus over the trading trail to the tribes of Indians in the territory that now forms the counties of Fulton and Hamilton.

One of the intrepid and devoted priests who administered to the Algonquins was Father Isaac Jogues, who, following the custom and the command of the Supreme Pontiff, related his experiences as a missionary in a communication made annually to the Holy Father. In one of these letters published in the collection of the "Jesuit Relations," Father Jogues tells of his being captured by the Mohawks in 1643, while off his guard and wandering some distance from the Algonquin outposts, and of being brought to the Saratoga region, where he encamped with his captors at the spouting mineral spring to which they often repaired for refreshment and restoration after enduring the hardships of war or of the chase.



Many years thereafter, or to be exact, in 1767, Sir William Johnson, Baronet, who bore a commission from his Majesty George II of England, visited the spouting mineral spring mentioned, guided thereto by friendly Indians. Sir William, in command of the English troops, had inflicted a severe defeat upon the flower of the French army under Baron Dieskau at the battle of Lake George in 1755. He had established very friendly relations with the Indians, even having married a daughter of a sachem of one of the tribes. From a bullet wound received in action at Lake George he never entirely recovered, but suffered frequently and severely from its presence. It was never extracted. In 1767, during a painful attack due to the presence of the bullet, he was taken by his Indian friends, part way in a litter carried upon their shoulders, part way by boat, from Johnstown to Schenectady, thence to Ballston, thence through the forest to the Kayaderosseras River, and finally up that river and across the plain to the High Rock Spring, the "Medicine Waters of the Great Spirit." After making obeisance to the Manitou of the spring, Waraghiyaghy, the "white brother of the Mohawks," partook of the healing waters of the High Rock cone spouting from the orifice. As far as we know he was the second white man up to this time to behold the spouting spring, the Mohawk brothers having determined after a solemn council to reveal this sacred treasure to him, as a proof of their affection, that he might receive the blessing of the Great Spirit. Living in a bark lodge which the Indians erected, he continued to take the Saratoga cure until he had so far recovered as to be able to walk most of the way home. From that date to this, the medicinal virtues of the Saratoga waters have been known, and other springs have been discovered by the white men who visited this region, following in the footsteps of George Washington, George Clinton, General Philip Schuyler, Alexander Hamilton, Colonel Humphrey, Colonel Fish, and many others who repaired to this fastness of the woods while yet the region was a wilderness with but one roadway cut through the forest.

Many distinguished litterati, scientists, diplomats, warriors, and statesmen visited in the early days the village which rapidly sprang into existence, clustered around the springs. Historians have given us the names of many presidents of the United States,

orators, musicians and celebrities who formed part of the throng of illustrious people who were guests at the Spa two generations ago, when its tide of gaiety reached the high-water mark. Through all the period of gaiety, of gambling and racing, the use of the mineral waters was desultory and unscientific, depending largely upon caprice and growing custom, and to a less extent upon medical guidance. Rival owners made amazing claims, and circulated damaging reports concerning their neighbor's springs.

As railroad facilities improved, and other equally charming spots were made accessible to the summer tourists and the traveler, the vogue of Saratoga diminished and its former amazingly large and wealthy summer population decreased almost to the vanishing point.

In recent history are recorded the decrease and final cessation of the flow of mineral waters from many springs, because of the pumping out of the subterranean streams by clever dealers, who separated the valuable carbonic acid gas from the waters, wasting them, and selling the gas to very great advantage. The springs "went out." Wise application of law stopped the pumping, and a most judicious and far-reaching policy was adopted by New York State, which, following the example of foreign commonwealths, during the past five years has secured all of the valuable springs with surrounding territories by purchase or condemnation, restored the healing waters to their former abundance and availability, and provided facilities for their utilization by the invalid who can be benefited by hydrotherapy or crounotherapy.

It is well known by those of us who have sent patients abroad for treatment at French or Austrian or German spas, that the courses of baths given are of undoubted and decided value to our patients. Many of the foreign bath resorts are founded upon old ruins of Roman bath houses, ample and elaborate, for the value of medicinal baths was known and enjoyed by the wealthy nobles of the Roman empire for centuries.

A course of treatment at a bath resort consists of diet, rest, exercise and baths. Climate, elevation, low humidity, sunny days, rest and peace have much to do with the improvement of the patient. Diet plays a very large and important part. But the bath remains the pivotal factor, and adds to the immediate and favorable results which cannot be obtained without it.

The history of the famous resort at Bad Nauheim teaches us that the carbonic acid waters which gush from the earth at that point are of marked value in cases of malnutrition, neurasthenia, and the period of convalescence after fevers or wasting disease. It was not until 1870 that their virtues in circulatory diseases were appreciated, and a regular system for their use was instituted in cardio-vascular disorders. We have all read the testimony of Beneke and of the late August Schott, who elaborated the Nauheim system so wisely and intelligently and gave to us the method of using CO<sub>2</sub> waters which is in vogue today, and for which many thousands of Americans, sent by their physicians for annual treatment at the foreign spas, have been accustomed to go abroad. Saratoga Springs offers to-day equally valuable waters, parallel opportunities, and sufficient installation for the administration of this form of treatment.

The water is in all probability rain water that percolates through the porous rock from a distant point where it falls upon a stony out-crop in the mountains, taking up the carbonic acid gas and the chloride of sodium which result from volcanic action, passing through primary and secondary pores in the rock, through the bedding planes between the strata and through the joints in limestone, dolomite, and sandstone, gathering up through its erosive and corrosive action salts of calcium, magnesium, barium, lithium, strontium, iron and sodium, even dissolving silica and alumina, and blending into one solution a product that finally reaches the surface bubbling and spouting forth into the air. The properties taken by the State of New York comprise 160 wells, springs and bores in the Geyser Park of 250 acres and the Lincoln Park of 60 acres, besides Pine Promenades that connect them and nearly tie up Lincoln Park with the village of Saratoga Springs, as well as smaller pieces of property in the village, including the small area that surrounds the cone of tufa through which for centuries spouted the High Rock Spring.

Besides the diseases and disorders mentioned, the water used in the form of baths is of value in disorders of the joints and anaemia, while taken internally it is also valuable in many digestive disorders and in obesity. Reduced efficiency and early decay are relieved and retarded by bath treatment when joined to proper

diet, rest and exercise, and partial restoration with prolongation of life can be secured in a large number of cases.

Geyser Park is traversed by paths and gentle climbs, presenting the mild varieties of the Oertel Hill-Climbing Exercises so valuable for the average patient whose ability is decreasing, and especially for certain cases of cardiac diseases after the myocardium has begun to improve in contractile quality. Sylvan streams, banks of ferns, limpid pools, sandy stretches, shady dells and sunny nooks combine to provide variety and interest, and to lead the often irritable or unhappy patient out of his mood into one of placidity and content, and into an enjoyment of existence. Such agencies as are provided by the state at Saratoga Springs will undoubtedly relieve conditions that lead to mental disorder, or to nervous exhaustion and depression that not only reduce the joy of living but vastly reduce the efficiency of the average sufferer, or even of the hardy and more resistant patient who withstands the ordinary result of disordered metabolism and arterial decay until a sudden and complete surrender to disease occurs and a condition supervenes from which there is no escape.



## THE VALUE OF ROUTINE LABORATORY WORK IN PSYCHIATRY.

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Hospitals for the insane are rapidly replacing the old asylums, and the patient—not the per capita cost—is becoming the object of medical interest. Governing boards are beginning to realize that a laboratory is not an unnecessary luxury, but an absolute necessity. The evolution has been slow, but it continues, and we predict that before many years the antiquated idea that laboratories are luxuries and not necessities will have vanished.

A hospital without a well-equipped laboratory and without a pathologist on the staff may be compared to the country doctor who treats his patients by guess and by faith. But perhaps I do the country doctor an injustice, for he does treat his patients after a fashion, while poorly-equipped institutions do little more than house the insane. Fortunately science is entering into hospital activity in spite of the encyclopædic ignorance of legislators and trustees, and a laboratory no longer stands as a monument to a refined smuggler in the person of the superintendent. It is some years since Dr. Cowles, Dr. McDonald and others, with more recently Dr. White, have preached the heretical doctrine that the patient is directly benefited by research, and that it is a concrete benefit to the stimulated staff. We believe with others that investigation pays.

We must have all the data obtainable about every patient. It must be gathered from everywhere. The field workers, the physicians, the nurses and the laboratory must each contribute their quota. The function of the laboratory is to contribute biological, chemical and histological data in every case so that nothing may be lacking in the study of each individual patient. There must be routine examinations by the most modern methods as well as the working out of the special problems which are constantly arising.

Perhaps no better example of the value of routine laboratory procedures can be taken than the study of paresis and cerebro-



spinal syphilis. The etiology of paresis was proven in the laboratory. It is true that years ago Krafft-Ebbing was convinced that without syphilis there would be no paresis, but the actual proof was furnished by the laboratory. The diagnosis of many cases to-day is only finally settled by routine laboratory methods. Southard<sup>1</sup> in *A Study of the Margin of Error in Diagnosis of Mental Disease Based on a Clinical and Anatomical Review of 250 Cases Examined at the Danvers State Hospital, 1904-1908*, found that "thirty-five of forty-one cases unanimously diagnosed general paralysis ante mortem proved to be cases of general paralysis, 85 per cent accuracy." These diagnoses were made in the pre-Wassermann days. He further says: "The majority of the real diagnostic difficulties uncovered by this analysis would appear to require more intensive work in the field of clinical pathology." It is now more than five years since Southard published his paper, and during that time clinical pathology has entered the field. Pathological studies in modern hospitals have become as much a necessary and routine procedure as the making of a physical examination. With our present routine methods—the Wassermann reaction, the cell count, the globulin determination and the colloidal gold test—we venture to assert that 100 and not 85 per cent of the cases reported by Southard would have been correctly diagnosed ante mortem.

The number of paretics now diagnosed in the very early stage, largely as the result of routine laboratory work, is surprising, and if there is any hope of a cure surely it is in the early stage of the disease.

In the treatment, too, the laboratory has come to our aid and has given us the only hope, even though it is a very faint one, of cure. The intraspinal treatment, while it has thus far given us no brilliant results, is the outcome of laboratory work.

The etiology, the pathology and the treatment of paresis are the result of laboratory studies, and it may be added that in very many cases an early diagnosis is only fully established after the laboratory findings have been taken into consideration.

In our institutions there are many cases with diagnoses other than paresis who are syphilitic. This information is obtained almost wholly by routine laboratory methods. Several hospitals have reported that from 20 to 25 per cent of their cases are

syphilitic. The percentage of paretics in this number varies. In Warren 20.4 per cent of 452 admissions examined routinely showed a positive Wassermann reaction on their serum. Of this 20.4 per cent, 63 per cent had involvement of the cerebro-spinal axis and 40.9 per cent were syphilitic with no determinable invasion of the central nervous system. We may say that each one of the 40.9 per cent is a possible candidate for paresis. These cases, discovered incidentally as the result of routine laboratory work, are subjects for antisyphilitic treatment. They should not be left to develop optic atrophy, cerebro-spinal syphilis or paresis. Not to know the number of syphilitics and not to treat them is gross neglect.

Our diagnostic methods are constantly being added to. To the cell count has been added the Wassermann reaction, the globulin tests, and more recently the colloidal gold test. This last is exquisitely delicate, and in our hands has never failed to give a typical paretic curve in a finally diagnosed case of paresis. We have not had opportunity to determine its value as a differential test between paresis and cerebro-spinal syphilis. Only three cases of the latter have come under our observation, and each gave a typical paretic curve.

Our interpretation of the cell count, it seems, needs revision. The old view, still held by many, that there must be from ten to a hundred or more cells per cubic millimeter of spinal fluid in cases of paresis, and even more in cerebro-spinal syphilis, has not stood the test. One of us in conjunction with Newcomb and Mitchell<sup>2</sup> made repeated cell counts at two-week intervals in cases of paresis and cerebro-spinal syphilis, and found that the number of cells varied from none to more than a hundred in both diseases, and that the variation in number bore no relation to the physical or mental condition of the patient. For years we have been hearing about cell counts and their diagnostic value, the conclusions having been drawn from one or at most a few cell counts. Even to-day we read of the reduced cell count after Swift-Ellis treatment, in spite of the fact that it has been shown that there is often a great reduction in the number of cells when there has been no treatment at all. By taking advantage of routine laboratory methods, Darling, Newcomb and Mitchell have caused us to revise our ideas about the number of cells found and the diagnostic

value of one or two counts. Repeated examinations are necessary before conclusions can be drawn. In this same series of cases it was found that three cases of paresis gave a gradually weaker Wassermann reaction on the fluid until in a month it was wholly negative. In another month it was again strongly positive. We believe that many of the cases of paresis reported as having had a negative Wassermann reaction on the spinal fluid are based on the result of one examination. Every case diagnosed clinically as paresis or cerebro-spinal syphilis at Warren has had one or more positive reactions on the spinal fluid. In the three cases which showed a negative reaction at some time there was no relation between the reaction and the condition of the patient. There have been during the past two years six cases diagnosed as paresis in which a positive Wassermann reaction was never obtained on the blood, although as many as six tests were made on one occasion. However, it has been a quite common occurrence to obtain from one to three negative reactions on the blood followed by a series of positives, so that it is reasonable to suppose that if there had been opportunity to make more tests upon the persistently negative cases, a positive reaction would have been obtained.

It is not necessary to dilate on the value of routine autopsies. The history of a patient dying in a hospital is not complete unless there is a gross and microscopical report of examination of the viscera, brain and cord.

Many examples of the value of routine work in the laboratory could be mentioned, but one more will suffice.

We can safely say that in nearly every institution typhoid fever has made its appearance every year, and occasionally has become epidemic. Years ago epidemics were excusable, and to-day a sporadic case is excusable, but to-day an epidemic of typhoid fever in an institution is wholly inexcusable and is the result of neglect. Blame it on carriers, infective vegetables, fruit, or what you will, the fact remains that an epidemic is the result of neglect and some one in authority is personally responsible.

It is now many years since typhoid immunization was first tried. It is no longer an experiment. Scores of papers giving statistics have appeared in the last ten years proving the value of immunization. All are familiar with the results in the army. Now if a whole army can be made free from typhoid fever by harmless

inoculation, why can not an institution with a few thousand patients be made free by the same method? We believe that it can.

In May, 1912, a case of typhoid fever developed at the Warren Hospital. Twenty-five days afterward 998 patients and nurses had been immunized. But we made an error. Only patients under 50 years of age were immunized. Shortly afterward two new cases occurred in another building, one in a patient 65 and another in a patient 68 years of age. Immediately every patient over 50 years of age was immunized, and no further cases developed. Since that time over 2500 patients and nurses have been immunized, and in three years we have had one case of typhoid fever. and that ran such a mild course that the diagnosis was only established after repeated blood cultures had been made. We have typhoid all around us, but none in the hospital. Every six months the patients admitted during that interval are immunized. We have banished typhoid from the institution by taking advantage of simple routine laboratory work.

The problem of our syphilitics and the prevention of typhoid fever alone warrant the presence of a laboratory and a pathologist in every institution. The asylum has had its day. The day of the hospital is here. Diagnoses are no longer made by guess, but only after thorough study of the patient by means of every known method. We must have more laboratory work if we are going to advance. Without it, there is only one course open—regression.

#### REFERENCES.

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2. *Ibid*, Vol. 41, 1914.

#### DISCUSSION.

DR. WM. A. WHITE.—Dr. Weston stated that the position of the laboratory in connection with the hospital years ago was far different than what it is to-day. I presume that is true. There was no place for the laboratory; there was no reason for a laboratory that was sufficient to justify the legislature in granting an appropriation. Now the laboratory has come to the hospital; every hospital has one, and the work Dr. Weston has outlined is not only the work of the laboratory, it is a work that has to be done in the hospital by the laboratory, but the laboratory worker very frequently finds himself more or less isolated from the general sympathy of the hospital staff and from the general work that is going on in the hospital.



The work which Dr. Cotton \* brings before us is a work which has to do with the glands of internal secretion in relation to the psychoses, and is the sort of work which is going to correlate the clinical work on the wards with the laboratory in a practical way, and bring into union what has been separated for so many years, viz.: the so-called functional and organic problems of neurology, and the laboratory is going to be one of the most important organic factors in bringing about that union in the whole problem of mental diseases which is going to loom out of the past in the very near future. I hope that in future meetings we will be able to rout out of the corners of the several hospitals the young men that are engaged in laboratory and scientific work of all kinds, and that they will give us their papers. I say this for the younger men who are doing this work and need the encouragement, and the older men need their results for their information.

DR. WORK.—I wish to express a word of appreciation of the hospital superintendent who will bring with him to this meeting two members of his staff for the purpose of presenting a paper. I believe we must depend on these younger men from now on to stimulate the interest we so much need in the study of psychiatry. I very well remember some twenty years ago how readily I could diagnose mental cases. We had just three groups for them: that of mania, melancholia and dementia, and I could diagnose them promptly. Now, however, before I make a diagnosis at all I must consult my first assistant, who brings in the laboratory notes which he has prepared; then I must take the matter under advisement and probably arrive at a diagnosis. Certainly the time has gone by when I can make a diagnosis alone in all cases.

About 20 years ago I received a visit from a physician from one of the New York State hospitals. At that time it was pretty generally conceded that all knowledge relative to psychiatry would die with the New Yorkers. He said to me, "I can diagnose these people just about as fast as I come to them, by looking at them." But to return to the point, we who are older must depend upon these men who are younger, who have gone along with the development of psychiatry, including the laboratory, as far as it has gone. We must encourage these young men; the future life of this Association depends upon it and the future of psychiatry depends upon it, and if at the next annual meeting of the Association the superintendents would use their good offices to have their trustees send one, two, or more of these younger men to the meetings in order to encourage them, it would be a great step forward in psychiatry.

DR. EVANS.—It seems but fitting that there should be just a word more of discussion upon this very valuable paper; it represents very definite pathological research, and a sincere desire to develop a field of intense interest and importance to us who are engaged in the care and treatment of persons

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\* The manuscript of Dr. Cotton's paper has not been forwarded for publication.



suffering from brain disease. He has directed our attention to the ductless glands particularly, the glands of internal secretion and to metabolism, a field which, I think the majority of us at least feel, is very much unexplored; it is interesting; we know that it contains that which is of vital importance to us, and yet we have been unable to fathom it. It is unwise, because we do not understand it, that we should cast aside without serious consideration the efforts of those who are attempting to find what there is in this so-called poorly explored, or unexplored, field. I grant you that I know little, if anything, about what is really meant by metabolism; I use the word; I converse with gentlemen who use it freely, and I hear it explained in the laboratory, and when I ask any man to tell me definitely what he means by metabolism he seems to be a trifle at sea. It is something we want to know about and probably some day we will know more about. The glands of internal secretion is a subject that has been brought before the scientific world as worthy of our attention for years. It is directing all our laboratory work along with our clinical research, to the field or the study of dementia præcox, and the manner in which Dr. Cotton has given it attention is worthy of not only commendation on our part, but should stimulate those interested in the work, to prosecute that which he has set forth in a very clear manner before us.

I must admit that in the etiology of dementia præcox there is a strong tendency on the part of those doing the work in the laboratories, to set aside or misconstrue what we call hereditary influences. I believe the organs of internal secretion are just as much susceptible to the hereditary influences as are other organs brought under consideration in dealing with mental disease in its entirety.

DR. H. W. MITCHELL.—I want to add a few words in addition to what has been said in favor of encouraging the medical activity of the younger men of this Association, both in promoting their hospital work and in their demonstration of its results in our regular meetings. This attitude is not due to a selfish consideration for I can no longer plead guilty to the indictment of youth, but I can well remember the time when I was young and my personal ambition and my attitude toward the opportunities offered for development in a well organized state hospital.

In the better managed hospitals of the present time there is an infinitely broader field for the ambitious young man than was the rule twenty years ago. State hospitals of to-day, which have developed a reasonable degree of medical activity, furnish a field for the better type of recent graduates that can be made as attractive as any other branch of medical activity. In order that this type of young physicians can be induced to take up hospital work seriously there must be some inducement offered other than board and salary. There must be added the promise of professional advancement.

The development of medical work in our various state institutions depends solely upon the type of men that can be interested in the work as a permanent vocation. The better the organization, the greater the medical activity in any hospital, the better it will be for all concerned, but

especially for the raising of medical standards. In the development of our medical work and especially in the spreading of fuller knowledge concerning the prevention of insanity, there is a fertile field for the full expression of the best type of medical work.

To accomplish the desired results in our medical work it must be so organized that men can enter the junior grades with the expectation that their experiences will be such as to aid in their medical development, and that they can leave the service with an addition to their medical equipment if the work does not prove permanently satisfactory. The development of a medical service that will make this possible assures to each patient the best possible protection against medical inefficiency.

DR. CHARLES G. HILL.—Several years ago the question came up before this Association and the same idea was suggested as Dr. Work has brought out to-day, viz.: the encouragement of the younger men in laboratory work; the men who do the scientific work are naturally modest about bringing their work before this body. In order to encourage them I would suggest that we offer an annual prize for the best original report from laboratory men. I think this would be the means of bringing out more of this mode of investigation at our meetings.

DR. COTTON.—I only wish to say that I hope the Association did not get the impression that I disapprove of high-priced pathologists; I have stood for that ever since I have been in the work. I simply mentioned the fact that these methods have been carried on in the wards without the expense that we all have to consider, that of high-priced apparatus and other things. I think it does require the services in the pathological and in the anatomical field, of an expert pathologist, but the clinical methods can be carried on in the hospital with the means at hand. I hope to see developed in the hospitals, a line of research which will take in a great deal more than we have even thought of at the present time.

# FOCAL LESIONS OF THE CORTEX OF THE LEFT ANGULAR GYRUS IN TWO CASES OF LATE CATATONIA.

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## ABSTRACT.

### I. Introduction.

Relation of the two angular gyrus cases to previous anatomical  
work on dementia præcox.

Former work did not include focally destructive lesions.

"Late" catatonia and presenile psychoses.

Arteriosclerotic mental disease.

Melancholia.

Campbell on parietal lobes, angular gyrus.

Question of visual function of angular gyrus.

Alexia and the angular gyrus.

Conjugate deviation.

### II. Case A.

Clinical history.

Autopsy.

Microscopic study of focal arteriosclerotic lesion of angular gyrus.

### III. Case B.

Clinical history.

Autopsy.

Microscopic study of solitary tubercle of angular gyrus.

### IV. Summary.

### V. Conclusions.

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\* Being Scientific Contributions of the State Board of Insanity, whole number 119 (1915.22). Read at the 71st annual meeting of the American Medico-Psychological Association, Old Point Comfort, Va., May 11-14, 1915. (*Bibliographical Note.*—The previous contribution (1915.21) was by C. S. Rossy, entitled "Comparison of Mental Gradings by the Yerkes-Bridges Point Scale and the Binet-Simon Scale," submitted to the American Journal of Psychology, September, 1915.)

## I. INTRODUCTION.

The reasons for reporting these cases are several and distinct. Of course, we mean by our title to suggest a genetic relationship between the focal lesions and the subjects' symptoms. Yet we cannot offer proof of such relationship and are in one sense merely hoping to excite others to opposition or to similar reports. In the next place, however, it is undeniable that every case of truly focal lesion in any portion of the brain's silent areas needs reporting for the purposes of future compilation. And, in particular, lesions of the angular gyrus merit attention because of the very various claims made by experimenters and clinicians concerning its function.<sup>1</sup> Lastly, the fortunate peculiarity of the present lesions—their superficiality and virtual limitation to the grey matter—suggests a special value for these cases in proving the almost purely associational (non-projective) nature of the angular gyrus.

First, concerning the possible relationship between the lesions and the symptoms, we may call attention to the fact that the lesions lodge well within the confines of the posterior association area of Flechsig and that the lesions appear to be accompanied by no structural disorder of the projection system. Hence we might well be entitled to consider that the functional results of these lesions would either be *nil* (or negligible as amounting merely to an undemonstrable minor memorial or conceptual defect) or else in some sense mental. If mental, we might naturally suppose some disorder of memory or of conceptual power, possibly some functional loss which would contribute to a form of aphasia or other disorder of the thought-speech mechanism (see below).

Perhaps what most attracted us to the analysis of these cases was the possibility that they would contribute to the statistical conclusions put forward by Southard in 1910<sup>2</sup> and in a measure confirmed in 1915<sup>3</sup> concerning the relationship between catatonic and parietal lobe lesions. We may recall that Southard found that some 86 per cent of his series of *dementia præcox* cases showed lesions and that four groups of cases could be separated out on the basis of focal atrophies and sclerosis in particular areas. One of these groups was a group termed post-Rolandic and included cases with lesions in the postcentral and superior parietal regions and in the occipital region. It was those cases with *postcentral and superior parietal lesions* which showed catatonia. Likewise,

at that time Southard described a cerebellar group with catatonia (recalling the not exactly similar theoretical contentions of Kleist<sup>4</sup>) and a small group of infra-Sylvian cases (too small for correlations, although this gap has since been made good by a more extensive analysis of new cases, 1915). Then there was a good-sized group of pre-Rolandic or frontal cases with paranoic features predominant.

That 1910 series was, on the whole, rather deficient in cases with lesions in the more inferior portions of the posterior association area, and we were by consequence watching for such.

No one was more surprised than the physician most acquainted with the first case clinically, Dr. S. W. Crittenden, to learn at autopsy that the case was one of cerebral cyst of softening, since (barring the initial fainting spell) there had been no features to suggest cerebral arteriosclerosis, and the diagnosis had lain between *involution-melancholia* and *catatonic dementia præcox*. In fact, had it not been for the well-established onset at 43 years of age, there might not have been the slightest doubt of the propriety of the diagnosis *catatonia*.

Curiously enough, when the second case came to autopsy, the physician in charge, Dr. Wm. W. Dobson, remarked that this case was one of dementia præcox and in view of the contentions of one of the writers as to the parietal correlations of dementia præcox, as well as the results in the first case, inquired whether we might not also in this case find an angular gyrus lesion. The astonishment of all may be imagined when the tubercle was found in the appropriate place.

We may recall that the 1910 series of dementia præcox cases was so drawn as intentionally to exclude all cases of a decidedly "organic" appearance. Thus, had the present case been autopsied at Danvers during the years just preceding 1910, it would *not* have been used to build up the percentage of 86 having focal atrophies or scleroses. In fact eight cases of dementia præcox were actually excluded from the analyzed Danvers material on the score of marked arteriosclerotic changes (as well as five with marked generalized brain atrophy and 11 with marked chronic diffuse leptomeningitis). Some undoubted and beautiful cases of dementia præcox of a group to which the present case may belong were thus excluded from the 1910 analysis in which *complications* had



rigorously to be shunned. Some day that more "organic" series of dementia præcox cases should be carefully analyzed. Meantime the present case may serve as an example.

What is *late* catatonia? No extended analysis of the literature is necessary for the present note, and we will content ourselves with abstracting Kraepelin's most recent statements. Kraepelin states (1913) that 3.3 per cent of his series of over a thousand (1054) cases of dementia præcox took their rise between the 40th and the 45th year (also 1.2 per cent between 45 and 50, 1.1 per cent between 50 and 55, and 0.2 between 55 and 60).<sup>3</sup> Kraepelin mentions Petré's 24 cases of catatonia with onset after 40 (including six between 50 and 55, as well as one at 58 and one at 59). Schröder also reported a case with onset at 59. Zweig reported five cases with onset after 40. Schröder reported 16 cases of *Spätkatatonic* (earlier attacks in four).

Those involutional cases which Kraepelin regards (1913) as most open to the suspicion of being dementia præcox are characterized by an onset with *apprehensive excitement* and *depressive delusions* together with *catatonic signs, automatism, inaccessibility, resistiveness, stereotypy of posture and movement*. These cases then speedily terminate in pronounced mental deterioration (occasionally there may be a transient period of improvement at first). Kraepelin also mentions certain paranoid forms which may seem to warrant the diagnosis late catatonia. Kraepelin has no decisive word on this topic and relegates most of the pertinent discussion to his chapters on presenile and paranoid mental disease.

Turning to Kraepelin's latest work on presenile mental disease (1910) we find late catatonia considered as very probably a disease of quite different stamp from the common earlier type of catatonia.<sup>4</sup> "So long as we are completely in the dark as to the causes and nature of catatonia," says Kraepelin, "it cannot be denied that the process which comes on as a rule in youth may sometimes set in later—a point for anatomy to decide." Whereas formerly Kraepelin held that the climacteric might produce the same sort of results as adolescence, he has latterly become convinced that the late cases do not show the same sort of structural changes as the early cases.

To the above sketched clinical description, Kraepelin adds a few other clinical features in these late cases, *e. g., rhythmic movements, impulsive acts, incoherent, disconnected talk*, and says that,

in addition to excited and apprehensive delusional states, there may be cases showing gayety and delusions of grandeur.

It will be shown below that our cases fit fairly well with the main lines thus drawn by Kraepelin for late catatonia. However, inasmuch as at autopsy in the first case, we arrive (however unexpectedly) upon cortical arteriosclerosis, it may be well to summarize from the same Kraepelinian source (1910) the clinical findings in arteriosclerotic insanity.<sup>6</sup> It will require no thorough study of our case to show how far removed it is from the usual frame of arteriosclerotic insanity.

There are, according to Kraepelin, two main groups of arteriosclerotic mental diseases: 1. A group in which the total *psychic personality* becomes gradually altered, long before there is evidence of mental defect (some of these cases are epileptoid; some progress slightly, others more rapidly; all are rather states of mental weakening than severe dementias); 2. a group in which *sharp seizures* set in early and *paralyses* occur but *mental changes* remain slight (these cases suggest lesions in the larger vessels) until years have passed.

Our first case must surely fall into the former group clinically, if into either group; yet the brain lesion would rather suggest the second group. As a matter of fact, it does not appear that this case ever gave rise to the suspicion of arteriosclerotic mental disease (no bodily weakness until the later stages of tuberculosis, no unsteadiness, incoördination or tremor, no certain evidence of amnesia, no disturbance of speech).

If our first case be not of catatonia, it may possibly be of melancholia in the Kraepelinian sense. It may freely be granted that the case shows various phenomena found in melancholia. We ground our diagnosis on *apprehensive excitement, depressive delusions, inaccessibility, resistivism, mutism, stereotypies of posture, stereotypies of movement and speech, rhythmic movements, impulsive acts, incoherent and disconnected affectless talk, episodes*. These phenomena not only form the vast majority of those which Kraepelin describes as characteristic of late catatonia, but are also in the main not characteristic of melancholia. The possession of certain traits also found in cases of melancholia cannot be said to militate against the diagnosis late catatonia. In any case none would, we suppose, assert that either of the present cases is a typical case of melancholia.

In the above discussion, we have preferred to deal wholly with the Kraepelinian categories and naturally do not object to any critics who may choose to analyze our cases from some other point of view. Adopting the Kraepelinian point of view, we are merely seeking to follow Kraepelin's dictum that "anatomy must decide" in this group.

Turning now to a consideration of the angular gyrus and the possible results of its injury, we find the literature rather full and somewhat dubious.

The parietal area starting with the *precuneus* on the mesial brain surface, includes on the lateral brain surface the *postcentral gyrus* back of the Rolandic fissure and the (superior) *parietal gyrus* at right angles to the postcentral gyrus and running back to the parieto-occipital fissure; within the angle made by the postcentral and (superior) parietal gyri is a sub-region sometimes known as the *inferior parietal lobule*, containing from before backward the *supramarginal gyrus*, the *angular gyrus*, and the often less definite *posterior parietal gyrus*. Thus, could we trust the anatomical landmarks as affording any index or suggestion of functional differentiation, we should have to consider six constituent regions of the parietal lobe (1. postcentral, 2. superior parietal, 3. supramarginal, 4. angular, 5. posterior parietal, 6. precuneus).

If we turn to the cortex histologists, we find that Campbell (1905) differentiated cortex of but four types in this region, *viz.*, the postcentral, the intermediate postcentral, parietal, and common temporal types.<sup>1</sup> As to the controversy over the histological differentiation of the postcentral gyrus, we need not here concern ourselves; nor yet with Campbell's objections to Flechsig's claim of a special supra-angular portion of the superior parietal gyrus, said to ripen early (myelogenetic area 14). The parietal area of Campbell covers the precuneus, the superior parietal gyrus and the anterior part of the supramarginal gyrus.

Concerning the angular gyrus, Campbell first remarks, "The inferior boundary on this surface is the hardest of all to settle; approximately the ramus horizontalis (interparietal fissure) along with the ramus occipitalis of the intraparietal fissure form a dividing line, but these sulci certainly do not constitute a precise limit, for although it is exceedingly difficult, almost impossible, to determine the exact point where "parietal" cortex ends and "tem-

poral" begins, on account of confusion of type, yet I think it correct to say that the "parietal" type tends to cross the horizontal sulcal line and to trespass on the upper part of the angular gyrus, as well as on the upper and anterior part of the supramarginal convolution."

If this be true, then it may be conceived as possible that a few centripetal projection fibers do reach a portion of the angular gyrus, although there seems to be reason for supposing that not many such reach any portion of the parietal area of Campbell.

In so far then as the angular gyrus may partake of the nature of the parietal cortex, we may, in default of more exact knowledge, agree that it has in part a rerepresentative function with respect to sensory impressions (Hughlings Jackson's line of thought); the major portion of the angular gyrus is regarded by Campbell as belonging to the common temporal cortex as defined by him (see Campbell's diagram, p. 158). From Campbell's general adherence to the Jacksonian idea of levels, we assume that he would consider (a) postcentral, (b) intermediate postcentral, and (c) parietal to be (a) receptive, (b) representative and (c) rerepresentative.

Campbell states that with respect to a left-sided *word-hearing* center in the angular gyrus, he can find no histological evidence of differences on the two sides (p. 173). Larinow states that he has produced movements of the ears in animals by faradization of the angular gyrus (C. p. 262). Ferrier also produced lateral movements of the eye (and also of the head?) toward the opposite side by stimulation of the angular gyrus. But Sherrington and Grünbaum failed to elicit any movements (in the higher apes) by stimulation of the angular gyrus.

Ferrier thought that the angular gyrus should be included in the visual area; but it is now commonly believed that, in his experiments, he must have injured underlying optic fibers and that the angular gyrus has no visual function. However, v. Monakow (to use Campbell's words) "promulgates with some emphasis" a view "that there exists no part of the occipital cortex, and possibly none of the cortex of the angular gyrus, with which the macula lutea is unconnected." (Campbell's translation.)

"Clinical observations with subsequent autopsies cannot alone decide the question of the real extent of the human visual area, on



account of peculiarities in its blood-supply on the one hand, and on account of the possibility of new tracts being brought into operation on the other. But the evidence concerning the last-mentioned point, along with that showing that the macula remains intact even after bilateral destruction of the occipital lobes in the narrow sense, and finally the results of the study of secondary changes, necessarily suggest that the visual area occupies, in addition to the entire cortex of the individual occipital gyri (Cuneus, Lobus Lingualis, Gyrus Descendens, Occ. 1-Occ. 3), at least the hinder part of the gyrus angularis." (Gehirnpathologie, p. 468).

Inasmuch as our first case does show lesions of the hinder part of the angular gyrus, to say nothing of apparent shrinkage of the whole occipital pole, it is interesting to note that Campbell says that "a further point of importance is that a deep lesion in the left occipital lobe seems more likely to bring psychic defects in its train than one affecting the right."

Besides psychic blindness, much has been said concerning alexia (Kussmaul's *Wortblindheit*, Dejerine's *cécité verbale pure*, Wernicke's *subcortical alexia*), that is, an inability to comprehend written or printed language, despite the fact of perfect vision of the letters. To quote Campbell once more: "Clinically, many degrees and varieties of this affection may appear, but fortunately there is almost unanimous agreement concerning its pathological anatomy. In 10 or more cases which have been carefully examined (those of Monakow, Redlich, Verrey, etc.) the surface lesion has been confined to the region of the left angular gyrus and the second occipital convolution, and usually has spread sufficiently deep into the underlying white substance to include the fasciculus longitudinalis inferior, an important band of fibres, the connections of which we shall have to mention presently. And although, in some instances, other bands, *viz.*, the fasciculus longitudinalis superior, the occipito-thalamic radiations of Gratiolet, the forceps major, and in a few cases fibres pertaining to the splenium of the corpus callosum have been involved, the stress of the injury seems always to have fallen on the band first alluded to. Also it is becoming an established doctrine that destruction of the cortex in the region of the angular gyrus by itself, or of the fasciculus longitudinalis inferior by itself, is insufficient to produce alexia; the two must go



together, and for the production of the clinical manifestation long and short systems of association fibres necessarily must be destroyed."

But, in our case, there is no evidence (so far as total brain sections stained by the Weigert myelin method show) of involvement or a destruction of these systems of association fibers.

A review of what Heilbronner has to say in his systematic summary of aphasia, apraxia, and agnosia in Lewandowski's *Handbuch*<sup>7</sup> adds nothing further to the above considerations. "The recognized frequency of reading-disorder with lesion of the (left) angular gyrus is explained by the interruption of communications between the occipital lobe (callosal connections with the *right* occipital lobe also considered) and the sensory speech area." Schuster seems to have shown (1909) that interruption of the *left* optic radiation as such does *not* produce alexia.

Another symptom attributed by many authors to angular gyrus lesion is *conjugate* deviation of the eyes (Landouzy and Grasset, Wernicke, Henschen). Others (Charcot and Pitres, Flechsig and von Monakow) deny this. Lewandowsky (1910) concludes that the parietal region, the inferior parietal lobule and the angular gyrus surely have something to do with conjugate deviation, although the angular gyrus localization has proved to have slight localizing value as compared with the middle frontal gyrus localization, proved by Oppenheim and Sahli in human cases (abscesses)."

Henschen reasserts (1910) that no portion of the optic paths and especially not the inferior longitudinal fasciculus sends fibers to the angular gyrus." It would appear that our cases offer strong support to that contention.

## II. CASE A.

### CLINICAL HISTORY.

*History.*—(B. S. H. 8065, Path. 1912.5). Born in Ireland; parents dead. She went to school until 17; then came to her sister in this country and began working, earning \$10.00 a month as chambermaid in a hotel. For the next 10 years patient worked in three different places as chambermaid; before she married at 27, left hotel work and worked at the New England Conservatory of Music at \$15.00 a month. It is stated by her sister that she was always well liked, capable, neat in dress, tidy in habits, read good

books and was religious; that she was not given to extremes in anything and had no mannerisms.

Two years after she married she gave birth to a dead child. This was a great disappointment to both her husband and herself, since they desired children. Other uterine history is that she had irregular and painful and profuse periods. Never again pregnant. The hypothesis of syphilitic infection must be here entertained (no test by Wassermann method); or perhaps due to the uterine tumor that produced menstrual disorder. The autopsy showed (besides the arteriosclerosis practically all above the diaphragm) some duropial adhesions in the cervical region, possibly due to old syphilis.

As a housewife she was successful, planned well with her money, was neat, used no alcohol, could sew and was right-handed. She worried over her husband's drinking habits, which it is stated he contracted eight years after their marriage. But for this, sister thinks the marriage would have been a happy one.

Six weeks before coming to the hospital (43 years of age) she had been caring for her sister who had broken her ankle, and one day went to church with her and *suddenly fainted in church*. After that she complained often of her head and worried about small things. Sat looking over her small possessions in her trunk and would say: "My head is sick. Go and get the priest. What'll ever I do—What'll ever I do!" Four days before going to the hospital she thought her husband was going to leave her, since he asked for the house key (to go to mass). After this she was excited and restless, often saying: "Jesus, Mary and Joseph, what will I do—get a priest for me," thinking she was going to die. During this time she did nothing and was not violent until they came to take her to the hospital, and then she screamed and was subjected to restraint.

*Physicians' Certificate.*—Patient said: "Don't take my John from me. They are going to kill each other. They can't arrest me—I never did anything. They can't put me away. I am going to be left here all alone tonight. Save my soul. I am going forever. Is there a just God? We will all be murdered tonight. They are going to kill John down there. I will jump out of the window." She refused a glass of water, although previously having asked for a drink of water, claiming that it might be poison. Lately she has absolutely refused to take food or medicine. About two weeks ago she claimed to be choking, but on examination everything was normal. Now we cannot go near her, as she is suspicious of everybody and it is impossible even to examine her. She was continually striving to take her clothes off and made an attempt to go out of the window. Excitable and extremely restless. She has been continually making claims that some people have been persecuting her, and she has been constantly in fear of arrest.

*Physical Examination.*—Emaciated and weak, probably from refusal of food. Has a rapid pulse rate, sordes on teeth and has hemorrhoids. Is constipated, urine is high colored and concentrated, but no albumen.

Her expression is anxious and apprehensive. Thinks her husband and nephew are to be killed. Believes the food is poisoned. Tube fed. For two weeks after admission she was fed by tube and remained very much confused, excited, restless most of that time, wandering about the ward, disrobing, refusing to eat or talk and moaning and muttering incoherently. She became very much exhausted, and finally, after five days, she went to sleep and slept nine hours, after which she seemed stupid and drowsy. After that she took a fair amount of nourishment and slept pretty well, but lay in bed with clothes drawn up over her head and would not talk at all. It is thought that she was not as confused or as suspicious as when she came in.

In 10 days she began eating again, began to answer questions and looked much brighter. Then suddenly became confused and excited, rushed about the ward, frightening the other patients exceedingly, and was transferred to a more disturbed ward. Peered about and started at each sound as though influenced by hallucinations. Four days later a note states that she was still confused and resistive and had to be tube fed. When in her room made an outcry most of the time. Slept poorly.

The next month's notes state that she was apprehensive and distressed. Imagined she had no blood, no bowels, that her back had been stripped off and she was being hanged by the neck. Clenched her throat until it was red and almost raw from her finger nails. When food was placed in her room and the door shut she would eat a good part of it, but would not take any from the attendants. "Worrying herself to a shadow."

A week later than this, three months after admission, a few detached sentences, such as the following can be distinguished: "Can't you see my head can't go through that wall? Sure, I am somebody, I must be somebody. Oh, don't try to do that (as she is being lifted into her bed). Can't you see there is no bed. Don't hold on to me. You will all shut yourselves in here, too. Oh, sure, I am somebody. Oh, there is no bed, there is no room," etc. Appearance of great suffering and exhaustion.

Four month later, confused, apprehensive state most of the time. Mute. Resistive. More or less destructive. Physical examination poor.

A year later.—Still untidy and destructive; sometimes unexpectedly violent. At other times she would allow other patients to strike her and pull her hair without resistance. Lay about on a bench and dozed. When awake pulled at her hair and whined and cried out. No longer any appearance of apprehensiveness.

Two years later.—No change. Untidy and at times very noisy and destructive. Masturbated. Frenzies of excitement.

In April, 1910, five years after admission.—On a chronic, noisy, untidy ward. Had quiescent periods, when she simply lay about on a bench mute, and again, became much disturbed and cried, or rather roared most of the time, and wandered about in a staggering fashion, stamping her feet and seeking somebody to attack. Would fasten her hands in a patient's hair while she was sitting quietly, with a grasp like iron, in spite of her feeble appearance. Resistive about going to bed. Not taken out of doors

except in summer, as she would lie down in the path and refuse to walk. At times she shouted and yelled the same phrases over and over in a high-pitched, monotonous voice for hours at a time. She resisted passive movements.

1911.—Noisy, shouting over and over incoherent sentences and stereotyped phrases. Still very untidy.

June, 1911.—Remained in bed in the same untidy, noisy state. Some days she would shout most of the day, using unintelligible phrases in a high-pitched, monotonous tone. Noisy at night. Small doses of sedatives.

December, 1911.—Six years after admission. Failing physically and, though she resisted physical examination, it was discovered that she has a marked dulness over posterior lobe of both lungs, especially the right, with moist rales. No expectoration.

January, 1912.—Gradually became weaker and died.

Diagnosis on admission, involution melancholia; diagnosis on discharge, dementia præcox.

#### POST MORTEM EXAMINATION.

Autopsy 13 hours post mortem (M. M. C.).

*Cause of Death.*—Pulmonary tuberculosis (cultures from).

*Acute or Active Lesions.*—Cystitis; sacral decubitus; hemorrhage into left ovary; hemorrhage into left renal pelvis and into cyst of left kidney; internal hemorrhagic pachymeningitis with partial organization.

*Chronic Lesions.*—Emaciation; aortic, coronary, internal mammary, splenic arteriosclerosis; slight hypertrophy of heart; slight atrophy of liver; slight atrophy of thenar muscles; fibromyoma of uterine fundus (6 cm. in diameter) with underlying chronic endometritis; right ovary cystic; chronic focal adhesive peritonitis (ectum, left Fallopian tube, broad ligament, and ovary involved in adhesions; no lesion inside rectum to correspond,) possibly healed syphilis; mammary atrophy.

*Anomalies.*—Right pupil smaller than left; asymmetry of sternum (lower end deflected to right); left clavicle depressed; nose deflected to left; rigor mortis absent in right arm, trunk, and neck (13 hours post mortem); contractures (?) of hands.

*Nervous System.*—In addition to slight internal hemorrhagic pachymeningitis, very slight calvarial adhesions, calvarial depressions to accommodate arachnoidal villi and middle meningeal arteries, comparatively thin temporal bones. There are lesions as follows:

*Variations in Consistence of Encephalon.*—Olives, occipital and frontal poles firmer than hippocampal gyri and cerebellum; the latter in turn firmer than the temporal cortex (this suggests topographical variations in degree of gliosis).

*Slight Atrophy of Encephalon.*—Brain weight 1145 gm. (Tigges' formula would yield 8 x 1 body length 150 cm. = 1200 gm.).

*Cyst of softening of grey matter of left angular gyrus* (of almond shape, major axis nearly at right angles to longitudinal fissure, external extremity



slightly posterior, about 4 x 2 cm.) with overlying *sclerosis of pial vessels, notably veins. Slight retraction of left occipital tissues* (atrophy?). *Edema of Gasserian ganglia* (pituitary firm). *Adhesions of dura to pia in cervical region.* Slight basal arteriosclerosis (no patches or yellowing).

Frontal sections through the two hemispheres in the plane of the focal lesion were stained by the Wiegert and Wiegert-Pal methods for myelin and by Mallory's anilin blue method for connective tissue. Smaller blocks from the injured, adjacent, and coördinate areas were stained by various methods to arrive at some notion of finer details.

Large brain sections through the middle of the lesion pass through planes posterior to Dejerine's frontal section No. 137 (Dejerine's fig. 266), and display relatively intact (beginning at a point superior to the lesion and skirting the left hemisphere) the *first occipital gyrus, superior parietal gyrus, cuneus, lingual gyrus, third occipital gyrus, and second occipital gyrus.* Indeed, small limiting portions of the angular gyrus are likewise intact, namely portions adjacent to the interparietal sulcus above and to the second occipital gyrus below. The plane of section also demonstrates some intact white matter apparently isolated from the underlying white matter: this appearance is explained by the shape of the lesion which is not quite round.

The process in and about the focal lesion seems entirely chronic or (with due respect to the neuroglia appearances) perhaps very slowly progressive. Of first importance is the histology of the cyst itself. The cyst is evidently due to an old necrosis of tissue supplied by a terminal branch of the parieto-temporal branch of the sylvian artery. The thrombotic arterial branch itself was cut at a point about 1 cm. posterior to the anterior border of the cyst of softening and can be seen making off from a previous blood-filled artery. The shrinkage of tissues due to the cyst has caused considerable buckling of the thrombosed artery, unless we are to suppose that the disease process has lengthened the artery. The thrombosis is of ancient date, as evidenced by the canalization of the connective tissue contents of the vessel. Mallory's anilin blue connective tissue stain shows a somewhat denser portion of small dimensions in the middle of the obliterated lumen: it is possible that this represents the remains of an old compressed strand of dissected-off endothelium. If this hypothesis is correct, it is possible that the original thrombosing process was like that found in various acute meningitic processes (pneumococcus and typhoid meningitis, for example). The sections show that the thrombosis extended for at least 1.5 cm. probably a greater distance (in the total-brain section block this vessel can be followed as a gray cord at the bottom of a sulcus stretching forward, outward, and slightly downward to communicate with the main parieto-temporal branch).

The cyst itself shows some collapsing of its numerous connective tissue-septa. Between these septa, which are rarely thicker than pulmonary alveolar walls, are collections of large phagocytic cells stuffed with degeneration products, but with nuclei (not as a rule pressed strongly to one side) rather quiescent-looking and globular. There are numerous small



blood-filled vessels running through the connective tissue septa. There are next to no polynuclear leucocytes in the cyst spaces. There appear to be few lymphocytes and fewer plasma cells (if any); nor are there any accumulations of mononuclear cells about vessels at any point. There is considerable edema in places, and a large vein next to the plugged artery is filled with coagulated albumen.

The edges of the cystic spaces are remarkably definite and only slightly exhibit any suggestion of edema. The neuroglia cells are often supplied with cell-bodies of comparatively large size; but the nuclei even of such cells are not often vesicular. Still, it cannot be denied that the larger size of the neuroglia cell-bodies gives something the aspect of an active zone.

As one passes back from the cyst edge, there is evidence of some loss of tissue, since the small vessels lie in vacuoles containing considerable coagulated albumen, indicating ante mortem dilatation of these spaces. It seems clear that fairly numerous nerve fibers have been lost from the white matter surrounding the actual cyst. There are relatively too numerous capillaries in the tissue of both cortex and white matter surrounding the cystic spaces; and this excess of capillaries shades off gradually in less than 1 mm. into tissue supplied with a normal number of capillaries.

The pial edges of the cystic spaces are interesting from the slight undermining of the tissues which makes it perfectly clear that the subpial zone has great vitality as compared with the underlying layers. This is probably to a great extent due to a separate blood-supply by short meningeal vessels. But there are also signs that the neuroglia itself in the subpial zone is capable of strong reaction: some sections show that the inner face of the subpial layer, as it presents upon the cyst, is very markedly beset with neuroglia cells having expanded cell-bodies. In some places the subpial zone, as it overhangs the cystic space, has become a fifth to a fourth thicker than in adjacent regions where it overlies relatively normal nerve-tissue.

There are also ample opportunities for studying the differential vitality of the various cell-layers.

### III. CASE B.

J. G., No. 9599. Autopsy No. 1913-47.

*Family History.*—Patient's father was peculiar and at present (1910) has chronic melancholia. Mother is very nervous, and one sister is in a sanitarium for nervous breakdown.

*Personal History.*—Patient went to the Boston schools until he was 14. Went into insurance business at 18. He was very successful and remained with one company, A, for 18 years, when he was discharged because his commissions did not show a sufficient increase. This misfortune was a great shock to him and he worried excessively about it, but he at once secured a position with Company B, did well with them and remained there 18 months, when Company A offered to take him back and he

accepted. He was given a very bad district in the slums of Boston, had trouble with his agents and all went wrong. He was admitted to the McLean Hospital February 1, 1910, with the above history, and the onset was given as 12 days before admission, when wife came home from the theatre and found him talking incoherently to himself, which condition has persisted. He has made several attempts to get away from the house and on the morning of admission to the hospital tried to jump from the third story window.

*Physical Examination.*—On admission to McLean was negative. All his answers to questions were given with more or less hesitation and with many incomplete sentences. He did not appear particularly depressed. There was no evidence of motor retardation. The immediate data of his experiences he took in but did not reason about them. A good deal of thinking disorder. Five days after admission, while sitting in chair, he suddenly slumped to the floor. Reflexes not disturbed. For 24 hours he lay in bed apparently dazed, keeping his gaze fixed very steadily on any new point of attraction. He would not eat and for four days he was tube fed, and at the end of the fourth day again gradually relapsed into the same dazed condition. Pulse 85, temperature in axilla 100. He would open his eyes after several commands, but had to be catheterized. In eight days he became a little more restless, temperature rose to 105, pulse 120, respirations 104. Two hours later, temperature dropped to 101, pulse 110, and the temperature became normal the same evening. Ten days after the initial attack, he suddenly made a rush for the window and resisted being put back to bed. Some days he had periods when he seemed amused; then would suddenly become tense and surly. Between the 15th and the date of admission to this hospital, the 23d of April, he has been much more inclined to fall into fixed attitudes, staring out of the window for 30 minutes at a time without perceptible change in position. Has acquired many habits, such as washing hands a certain way, standing in one place in the room, etc. Often complains that his head feels as if it were stuffed with mud. Often gives answers that are superficially correct, but does not want to take the trouble to put any real thought on anything he says. The striking things of his history are the *heredity*, the *efficiency* up to the age of 36, and a *sudden slump* which was recognized by his employers; followed in two years by marked physical change and increase in his mental incapacity. When he came to this hospital he was 38. His habits were said to be good. Commitment papers indicated that he was *suicidal*; and the patient said detectives were on his track, that he was going to carry a pistol in each pocket to protect himself, that a lodger across the street was a detective and on the watch for him, that there was a scheme in the insurance company to drop him out of sight. Patient was pugnacious and agitated, attempted to jump out third story window.

*Other Facts.*—Has failed mentally for some months; has lost his position with the insurance company. Has frequently spoken of revolvers and attempted to procure them. Has attacked his wife.

*Physical Examination.*—Shows a high narrow palate. Sluggish patellar reflex and *unsteady gait*. Coarse tremors of the tongue, disconnected speech—otherwise is negative. He talks constantly, twists his face into many peculiar expressions, but there is no speech defect. *Consciousness* is said to be greatly diminished. Evidently has *hallucinations* of sight and hearing and his attention is markedly blunted. His *memory* is poor and his *orientation* also. His train of thought shows a remarkable flight, of which the following is an example: "My head was driven right down between my shoulders. I was the littlest Jesus in the manger, started in eating straw. If I had been a horse, I'd have eaten my old black hoof. I have palpitation of the heart and liver at seven cents per pound. My father tried to shoot himself in Ayer Junction and Groton, Groton, Groton oil, capital G-R-O-T-O-N spells Groton, rotten whiskey is 15 cents a bottle in Springfield. Bancroft drank vinegar to quench his thirst. There's your knuckle, you bite it and its pinochle. Look at the Spanish-fly blister (pointing to a part of his body where there is no mark of any kind). Of course, suicides run in families, settled in Maine and moved up." In May, 1910, is reported as being disturbed, and destroyed clothing. In a highly excited condition, talking continually in a loud, rapid manner and going through many peculiar, purposeless movements. Treated with warm baths and became more quiet, which continued to the last of July, when he had a *temperature* of 103, which persisted for about a week and then became *normal*. In November of the same year, the note mentions that he is in a dull, stupid condition, cannot answer questions intelligently, and seems to be very much *demented*. Owing to his inactivity, his feet are swelling; he has become extremely untidy in his habits and does all sorts of repulsive things. For example—plugging his nose and ears with feces and rubbing feces over his body and hair. In May, 1911, he is somewhat untidy but appears brighter, and the next December he is noted as taking more interest in his surroundings. Has been employed in the industrial room and picked up considerably. Enjoyed going to the entertainments, but is said to be semi-catatonic. Later, leaves arms in position placed by examiner for a long time, and was at this time presented at staff meeting where four people thought him *dementia præcox*, though "manic" and general paresis were considered. Two years after the initial attack, he is reported as being stupid and answering questions in a whisper, sometimes intelligently, other times irrelevantly and was found to have a temperature of 99 degrees; and had an attack of *otitis media* in the right ear which persisted for 10 days with a temperature range of 98 to 104. He was at that time tested by the Von Pirquet, which was *negative*. From then on there is a record of his temperature during the remainder of his stay in the hospital which is a continuous one, sometimes for weeks ranging decidedly above normal with upshoots to 102, and pulse between 80 and 118; and during the spring of 1912, the highest temperature not reaching above 102, the second Von Pirquet in March being negative, there appeared a small fluctuant tumor on the left back, between the sixth and tenth ribs near the spine, and tubercle bacilli were present. From then on the notes talk

of discharges from "cold abscesses" in various parts of his body, and physical failure; incoherence in conversation.

August 15, 1913.—Edema of the legs and irregular pulse was noted, which increased with shifting dullness in flanks and a distended abdomen. Physical signs of general tuberculosis and edema.

*Summary.*—A man, in hospital 44 months and three days, died at the age of 41, after an illness which first appeared to be manic depressive; diagnosis later was dementia præcox with an onset at the age of 36. Commitment at the age of 38 with various attacks of unexplained temperature, and finally died after a long drawn out physical illness, with multiple discharging points of tuberculous abscesses.

The points in favor of general paresis were that at the age of 36 there was a period when business fell off, followed by a period of excitement and a slump, followed by demented condition. There was a tremor of tongue, slight unsteadiness of gait, and the *destructiveness* and repulsive *untidiness* mentioned. But there were no physical signs, and cell-count negative. Consistent with manic depressive psychosis, were suicidal tendencies, heredity, flight of ideas, a reason for worry (being discharged). For dementia præcox—he was discharged because of *inefficiency* at the age of 36—he was *incoherent* in his talk and *superficial* in thought. There were evidently imperative *impulses* when he would try to jump out of the window. There was a period of *mutism* and *refusal of food* and a *stupor* in which he had to be catheterized. There was the assumption of *fixed attitudes and mannerisms*, and lack of ability to think coherently. He thought that the *insurance company was against him*, and he was evidently *hallucinated* for sight and hearing and his speech was rapid and incoherent. His early dementia and inactivity and semi-catatonic reaction make a diagnosis of dementia præcox most probable.

The autopsy showed visceral and brain lesions of extraordinary interest. There was a general anasarca. There were areas of decubitus and there were linear surgical wounds, some still discharging, on the inner thigh, one at Poupart's ligament, one near the anterior superior spine of the ileum, one on the external side of left thigh, and one left posterior inner outcurve of the eighth rib, and there was a swelling 5 cm. in diameter over the sternum at the junction of the xiphoid process. There was also an ascites of a chyloform nature which is unusual.<sup>1</sup>

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<sup>1</sup> Battey-Shaw Journal of Pathology and Bacteriology, volume 6—1900, page 330, notes that Bussey in 1889 first classified various reported cases of chyloform effusions of which there were 115 cases, and 54 cases of hydrothorax of a chyloform form-nature and two of chylus pericardium, and that these were usually due to rupture of or pressure upon the thoracic duct. Allbutt in the system of medicine, page 515, gives the mechanism of production of chyloform effusions as:

1. Failure of heart as a pump, falling of arterial pressure, rise of venous pressure near the heart, followed by fall in capillary pressure and absorption of fluid from the intestines and a diminished urine.



There was in this case no evidence of pressure on the thoracic duct by lymph nodes or growths of any sort, but the heart entered into the general tuberculous process by supporting an abscess which was continuous with the swelling over the xiphoid process that infiltrated the eight intercostal muscles on each side internally, through the articulation of the eighth rib on the left to the anterior mediastinal tissues and to the pericardium and epicardium over the apex. Whether this incapacitating of the heart at the left apex and the surrounding pericarditis was the cause of the general anasarca is, of course, an hypothesis, but since all the tissues were flooded with fluid, it is not impossible to suspect that reversed venous pressure and gravity would permit and encourage the transudation of the chyle through the receptaculum chyli.

Tuberculous processes were also in the lungs, in the kidneys and in the left psoas muscle, and there was in the brain a focal area of firmness in the anterior portion of the left angular gyrus, which upon examination proved to be a fibroid tubercle, without caseation. The remainder of the brain was unusually plump and normal in appearance.

We have in this case then an unusual combination of visceral tuberculosis, showing a rare variety of *ascites*, a *psychosis appearing at the age of 36*, and an *irritative process* limited to the grey matter in one area of the brain cortex in the post-Rolandic region.

H. P. M. 18. Age 41. Head, Trunk and Cord: M. M. Canavan.

Body of a fairly well-built and poorly nourished white male, 172 cm. in length. *Skin* waxy white, slightly discolored in patches in the neck region. No lymph nodes palpable but skin is full to *saturation* of fluid in all extremities, neck, arms, hands, scrotum and feet, and the *abdomen* protrudes and nearly obliterates the umbilicus.

*Pupils*.—Right, 0.7 cm., left, 0.8 cm. Rigor mortis present except in arms; *contractures* of legs to point of 45°; *body* in right lateral decubitus. *Decubitus* (superficial) over sacrum 4 cm. in length. There are several *surgical wounds* (linear), 2-3 cm. in length, some of which have healed, some still discharging; they are located as follows: two on right *inner thigh* in upper third internal to sartorius muscle; one at *Poupart's* ligament 4 cm. internal to left anterior superior spine of the ileum, one on external side *left thigh* 10 cm. below trochanter major, and one on *left chest* posterior near the outcurve of the eighth rib. There is a *swelling* 5 cm. in diameter over the sternum at the junction of the xiphoid process. Penis not examined. Tibiæ smooth.

*Ventral Section*.—Panniculus nil—skin and muscle very thin over thorax and abdomen—the latter particularly, and the stomach and coils of white

2. Hydraemic plethora rise of main pressure throughout vascular system.
3. Stage of dropsy caused by high capillary pressure and increased permeability due to malnutrition.
4. Hydraemic plethora leads to ever increasing over-filling of the heart cavities, and to failure of the heart.



intestine well out of the incision, as does quantities of opaque thin fluid, (several thousand cc.). Spleen free and large—liver floats away from right side and from diaphragm. Appendix 6 cm. in length. Peritoneum looks clear and also the intestines except for a short space of the small gut where the visceral peritoneum is grey and parboiled in appearance and shows no miliary tubercles. Mesenteric lymph nodes slightly enlarged; fat in mesentery infiltrated by fluid. Diaphragm not measured. Prolapse of rectum slight.

*Thorax.*—Making the cuts through the skin the swelling before mentioned is undermined and at once a quantity of yellow-green pus exudes. Stained specimen shows detritic remains of cells and tubercle bacilli. This abscess has ramifications of an unusual extent, for connected with this local well of pus are other pockets infiltrating the eighth intercostal muscles on both sides and extending laterally to a line dropped from the nipple on the left to the mid-axillary line on the right, and internally through the articulation of the eighth rib on the left to the anterior mediastural tissues and to the pericardium and epicardium over the apex. *Lymph nodes* in the area outlined are enlarged and all tissues are edematous.

*The pleuric cavities* are filled with fluid, the lungs floating in it, and the left lung is attached to the chest wall at the apex and to the posterior wall at the base; the right lung adherent at base and diaphragmatic surface. Peribronchial lymph nodes enlarged.

*Heart.*—Weight (with pericardium and much edematous tissue surrounding), 410 gm. It is impossible to separate the peri- from the epicardium except by dissection, and the apex of this spreading puriform abscess is discovered to be in the epicardium over the left ventricle near the base of the heart, and extends also laterally so that cross-sections of the muscle reveal areas of cheesy material following the coronary left (descending branch) and also in the edematous epicardium. At the point where the pus is the most abundant (near branching of the left coronary), the heart muscle otherwise firm, is semi-disintegrated and softened and of a lighter color. Measurements:

T. V.	11.0 cm.	P. V.	7.5 cm.	L. V.	1.0 cm.
M. V.	10.0 cm.	A. V.	8.0 cm.	R. V.	0.4 cm.

Endocardium slightly grey. Right auricle very small and occupied by a thick cruor clot. The tricuspid valve is also adherent at its otherwise free edges. Note—(Condition of heart perhaps responsible for chylous ascites?).

*Lungs.*—Combined weight, 380 gm. Lungs are almost collapsed, left shows miliary dots on pleuric surface and a slight tuberculous process at apex (no cavitation) with an enlarged node clinging to apex wall. Cut section shows points of pus in some bronchi with reacting peribronchial infiltration. The right lung shows congestion but no tubercles and a cheesy spot on the lowest lobe posterior, which when separated from the thorax, leaves an infiltrated chest wall near the spinal column. The left upper lobe leaves the same appearance to the parietal pleura. On the right

eighth rib posterior near the vertebra is a ragged tear in the parietal pleura and an oozing pus point size of a walnut.

*Organs of Neck.*—Not removed.

*Abdomen.*—*Spleen.* Weight, 250 gm.. Capsule not thickened; organ very plump. No malpighian bodies; trabeculae indistinct, pulp rich in amount but not soft, no apparent edema.

*Adrenals.*—Plump and yellow; centrally softened.

*Kidneys.*—300 gm. Perirenal fat, stringy and edematous. The fibrous capsule not thickened. Cortex, which measures 0.6 cm., swells slightly over the capsule. Marked differentiation exists between medulla and cortex, the first very brilliantly red, the second most brilliantly yellow of an ochre shade. Examining this more closely the yellow has indefinite-edged, tiny, white linear specks very close together throughout the cortex. Blood-vessels in the cortex brilliantly outlined by vivid red color. Calices and pelves negative.

*Liver.*—880 gm. The entire surface has a contracted appearance, though the capsule is not thickened, and on section shows not more than a usual amount of resistance. No increase of interstitial tissue made out—liver quite bloody. Gall bladder pale and wall thick; contains no stones.

*Pancreas.*—Not examined.

*Gastro-Intestinal Tract.*—Stomach very large and distended with gas; rugae present, mucous wall fairly normal in appearance, pylorus free. No change in mucous membrane at any point of intestine; the section of that point which showed change on serous coat gave no corresponding change inside the gut.

*Genito-Urinary Tract.*—Bladder large and free, prostrate not enlarged. Testes not examined.

*Special Examination.*—Pushing a probe through the areas mentioned under general description on right inner thigh the free end of the probe ascends on the inner side of the sartorius muscle and is visible under Poupart's ligament. The right psoas muscle is thin and flabby and soft, and on cutting is seen to be greenish, brown and friable, and the fibers easily separate longitudinally, leaving individual fibers free with large spaces between, and the lumbar nerves are isolated and exposed; the neurolemnia of the nerves looks brownish (note—looks like the residual of a drained abscess). With the organs of the trunk removed, the peritoneum made as dry as may be, though every mesh of tissue has been as edematous as possible, the anterior portion of the spinal column is inspected for twists, curves or caries; none are found. The inner head of the left psoas shows pus in its substance and probably accounts for the pointing of an abscess in left groin. The lymph nodes along the spinal column are enlarged, the sympathetic chain appears smaller in caliber than usual, the retroperitoneal tissues immediately above and below the crura of the diaphragm look ragged, infiltrated and edematous.

*Head.*—Hair brown, mixed with grey. Scalp not remarkable. Calvarium measures—frontal 0.6 cm., temporal 0.4 cm., occipital 0.3 cm. Dura not thickened nor adherent, pia slightly translucent but at no point opaque.

Some excess of cerebrospinal fluid. Brain softened except for occipital tips and one small focus 1 cm. in the most anterior portion of the left angular gyrus. Basal vessels clear: pituitary small. Ganglions and middle ears negative. Brain weight, 1450 gm.

*Cord.*—Another attempt to locate if possible any caries of the vertebrae from the posterior aspect, and no curves nor dislocations nor softenings seen, though each vertebra was inspected. Some slight rotation of right fifth and sixth rib on the right. Back muscles very edematous. Transverse processes narrow.

*Anatomical Diagnosis (1913.47).*—Poorly nourished; general anasarca; unequal pupils; contractures; decubitus, sacral; surgical wounds, legs and back; abscess over sternum (tuberculosis); chylous ascites; mesenteric mediastinal and bronchial lymphnoditis; prolapse of rectum; hydrothorax; chronic obliterative pleuritis; tuberculous pericarditis; pulmonary tuberculosis; intercostal tuberculous abscess; tuberculosis of kidneys (?); beginning cirrhosis of liver; destruction right psoas muscle; pus in left psoas muscle; cerebral malacia; focal *sclerosis* left angular gyrus; brain weight, 1450 gm.

*Microscopic Examination.*—As in the previous case, the microscopic examination has been for the present confined to local conditions about the tubercle, except that no total brain sections have as yet been prepared. The tubercle bacillus was demonstrated in section. There was a moderate number of giant cells in the wall of the tubercle both on the side facing the pia mater and on the internal aspect. A bacillus was occasionally demonstrated in a giant cell. No other organisms appear to be found in the lesion.

It would, of course, be particularly important to know the age of the tubercle. So far as indications go, the tubercle may have been a very old one. The quasi-capsule of the tubercle was from 1 to 2 mm. thick and appears to be somewhat thicker on the pial side than elsewhere. In the outer portion of the fibrous capsule there are a moderate number of vessels whose sheaths are infiltrated with lymphocytes and a moderate number of plasma cells. No endothelial lesions were found. Outside the fibrous capsule there are some small vascular twigs with a slight infiltrate in their walls; but within far less than a millimeter from the capsule, infiltrated vessels were no longer in evidence. Just outside the fibrous capsule the nerve cells of all layers appear abnormal, suggesting pigmentation and a kind of spongy transformation in which the nuclei are not infrequently absent. These dead or dying nerve cells are not particularly prone to show satellite cells. Beyond the range of the dead or dying nerve cells, however, the nerve cells are very generally supplied with a moderate excess of satellite cells rarely more than three to five in number. These satellite cells do not especially occur at the bases of the nerve cells but preserve a somewhat irregular relation thereto.

Throughout the zone lying outside the fibrous capsule are moderately numerous neuroglia cells having expanded homogeneous-looking cell-bodies in which by appropriate stains ependymal dots can be demonstrated. These

expanded neuroglia cells have as a rule but one nucleus and rarely more than two. The zone of the "active" or expanded neuroglia cells passes beyond the zone of dead or dying nerve cells, and beyond the surrounding zone of nerve cells showing satellitosis, and these expanded neuroglia cells are found in otherwise normal-looking nerve tissue.

It is a question how these cells may be interpreted as to the part they play in the lesion. They do not appear more numerous or of a different appearance in the concentric zones above mentioned. They must very probably correspond to the destruction or partial destruction of nerve elements or portions of nerve elements.

A speculation could easily run to the effect that as the necrosis in the tubercle advanced, the surrounding zones themselves gradually advanced, with the neuroglia cells always in the lead. As the lesion advances, it may be supposed that the first thing which happens is the death of neurones or parts of neurones outside the zone of satellitosis in that region which we have described as looking normal but containing expanded neuroglia cells. As the destruction of elements in this part becomes more pronounced, the satellitosis enters. As death finally overtakes the cells, they lose their satellites, and hence the inner zone just adjacent to the capsule is developed, in which dead cells are seen but satellite cells are not prominent.

Meantime, whether from their superior vitality or from the fact that they can get on under less favorable circumstances, the neuroglia cells remain in comparative abundance throughout these zones and in approximately equal parts in all zones.

Accordingly, the tubercle, whatever its age, seems to be manifesting an unusually even extension as indicated both by the regularity and homogeneity of the capsular and pericapsular zones, but also by the evenly diminishing exudate about the vessels in these successive zones.

As to the reaction of the cell layers of the tubercle, no special study of these reactions has been made for the present communication. In the superficial orienting study no indications of a differential reaction were to be found. From the greater thickness of the capsule on the pial side and adjacent portions of the lesion, it might be inferred (though with no great assurance) that the region of greatest activity in the lesion was in this neighborhood and that accordingly the outer cell layers would be more particularly affected at first than the inner layers.

#### IV. SUMMARY.

In the nature of things no proof can yet be offered of the genetic relationship of lesions of the left angular gyrus and catatonia. It has been claimed by one of the writers that the catatonia of dementia præcox is more a property of parietal (post-Rolandic) lesions than of anterior lesions; and the dementia præcox lesions are not coarse lacunar lesions. Little or no evidence has been



hitherto available as to the relation of *coarse* destructive brain lesions to catatoniform syndromes in diseases other than dementia præcox. It is sometimes stated that deep *left-sided* occipital lobe lesions are more often attended by mental symptoms than identical lesions of the right side. And, of course, the classical relation of the peculiar symptom *alexia* to the *left* angular gyrus (to be sure it is now alleged that the underlying fasciculus longitudinalis inferior must be simultaneously affected to produce alexia) may be urged as pointing *leftwards* to a region of greater psychic interest.

However this may be, the writers present two cases, in themselves interesting, which suggested and obtained the diagnosis dementia præcox, although the cyst of softening in one and the solitary tubercle in the other may well be regarded as withdrawing the cases altogether from the dementia præcox group and settling them in a group of nondescript, coarsely organic, and destructive brain lesion cases.

The experience of these two cases suggests further work to secure psychopathic correlates in other cases (a study of the Massachusetts material of angular gyrus material is far advanced towards completion), and to learn from a large group of so-called "late catatonias" whether there are any which really belong in the true dementia præcox group, as we are coming to conceive it.

Of the two cases, A was female, B male. A's symptoms began out of a clear sky with a fainting spell at 43. B's symptoms began with business inefficiency at 36. A died at 50, having shown no sign of arteriosclerosis after the initial faint. B died at 41, having developed severe generalized tuberculosis, but no focal nerve signs from his solitary tubercle. The diagnosis in each case was perhaps not entirely clear, especially viewed in post mortem light; but each received the diagnosis dementia præcox. There is a suspicion (but only a suspicion) that A may have been syphilitic.

Both patients showed at one time or other *hallucinations of hearing* (B also of sight), *disorder of consciousness, confusion, incoherence, mutism, refusal of food* (tube-feeding), *impulsivity, delusions of persecution, apprehensiveness* (B also suicidal), *fixed attitudes, mannerisms, somatic delusions, destructiveness, violence, stuporous states* (catatonic).

The somatic delusions were partly cephalic, and may perhaps be taken more as illusions: <sup>10</sup> A., "head sick," "back stripped off and



being hanged by neck," "my head can't go through that wall"; B., "head feels as if stuffed with mud," "my head was driven right down between my shoulders."

As to *alexia*, neither case could be tested.

As to *conjugate or other eye movements*, A showed nothing which was independent of other parabolic acts, but B's eyes would sometimes be fixated for long periods upon a succession of different points in space (half an hour at a time).

As to *automatism* and *cereal flexibilitas*, A was at times (but rarely) passive to any form of attack, B showed automatism and possibly *cereal*.

As to *schizophrenia*, A ran to the autism of delusions of negation ("Sure I am somebody, I must be somebody \* \* \* Can't you see there is no bed \* \* \* Oh! there is no bed, there is no room."), B to grotesque shifting of ideas with some maniacal plays on words woven in ("There's your knuckle, you bite it and it's pinocle. Look at the Spanish-fly blister").

We may now compare the cases with respect to disorders of senses and intellect on the one hand and emotions and the will on the other.

The senses in both cases appear to have been normal.

Aside from periods of *confusion* and *incoherence*, *delusions of persecution* and *somatic delusions*, the patients showed little or no intellectual disorder. To be sure, both, as stated above, showed at one time or another, *disorder of consciousness* and *stuporous states* of a catatonic appearance, and it is possible that the *hallucinations of hearing* in both cases may be explained by some sensory or intellectual disorder of an unknown nature.

It does not appear that Case A showed a special intellectual disorder before the onset of her disease; it may be thought that Case B had experienced some intellectual deterioration as evidenced by his loss of business capacity.

Concerning emotions, both patients showed *impulsivity* which was regarded, however, as not of emotional origin. Both patients were at times *apprehensive* (B also suicidal) and both appeared to have reacted as it were normally to their hallucinations. *Refusal of food* in both cases may be regarded as possibly of emotional origin, although the general interpretation of the cases seemed to indicate that this symptom was of a catatonic nature.

Both patients had at times to be *tube fed*.

As to the general emotional state, it does not appear that either patient was ever euphoric, although B had periods of apparent amusement, in the midst of which he would suddenly become tense and surly (A also had sudden attacks of excitement, but it does not appear that they were related to a particular emotional state).

As to the will, the conduct of both patients was variable. Neither was successfully gotten to work, although each was for a good part of the time not in bed.

Both patients were *untidy* from time to time.

Both patients showed a number of anti-environmental symptoms such as *destructiveness*, *violence* and often dangerous *impulsivity*, *mutism* and the like.

Little can be said regarding the sex life in either case (masturbation in Case A, occasional remarks of a sexual content in Case B).

The bodily state of patient B fluctuated from time to time in response to the tuberculosis. Patient A showed no especial physical disorder except emaciation; this was also patient B's condition.

There appears to have been no clinical evidence pointing to the moderate atrophy of the liver in Case A, or to an early cirrhosis in Case B.

Both patients suffered from pulmonary tuberculosis, and Case B showed a variety of tuberculous lesions in many organs, as well as the chylous ascites considered in detail above.

The total duration of symptoms was in Case A, seven years, in case B, five years.

It would naturally be very important to know the age of the cyst of softening in A and of the tubercle in Case B. The appearance of both lesions is consistent with their being very old, at least as old as were the symptoms; nevertheless, it may be that both lesions were either older or younger than would be indicated by the age at which symptoms developed.

The argument is fairly strong in Case A that the lesion was probably correlated with the only *fainting spell* which the patient appears ever to have shown. It will be remembered that in Case A there were no other arteriosclerotic symptoms or any other suspicion of cerebral arteriosclerosis.

With respect to Case B, microscopical analysis seems to show that the lesion may have been in some sense slowly progressive, that is to say, that the necrotic center of the tubercle may have grown slowly larger with an even and progressive expansion of the capsule, parts of which may have been destroyed in the global spread of the process. Interesting details as to the special features of the successive zones of the lesion from within outward are given above.

If one were inclined to press analogies between these cases and the histological features of ordinary dementia præcox, one might be interested in the observation that the subpial zones in both cases, being origins of greater vitality (perhaps owing to their vascular supply), are the regions of greatest activity. Case A, for example, showed an intense neuroglia reaction in the overhanging subpial zone, and Case B also showed that the outer cell layers would be far more likely to be affected early than would be the inner layers.

This question is not one which can be resolved with such material as is afforded by these cases, nor do we know enough about the differential reactions of the suprastellate and infrastellate zones to make discussion at this time profitable. It may be noted, however, that in the later work of the Munich school, attention has been drawn to the suprastellate layers rather than to the infrastellate layers as a site of lesions in dementia præcox.<sup>9</sup> To be sure, Alzheimer had, so far back as 1897, noted gliosis of the lower layers of the cortex in catatonia;<sup>11</sup> but it appears that later work has tended to reverse this conclusion, or, at any rate, to show that the suprastellate zone is more markedly affected in most cases; at all events, this appears to be the situation in these two cases. What we now need, accordingly, is differential study of the angular gyri in a considerable series of dementia præcox cases, together with a sufficient control series.

Whether the lesions had a direct mechanical effect upon the tissues to give rise to the symptoms in these cases must remain obscure. That the gliosis with its contractile tendencies was more marked in the suprastellate region than in the infrastellate region, is merely an interesting fact that may be more a matter of coincidence than a fact of genetic value.

In work on epilepsy it was formerly claimed that very possibly the contraction of the proliferated neuroglia tissue might evoke or liberate convulsions, whereupon the simplification of neighboring tissues, structurally proved to exist before, would favor the propagation of the epileptic discharge.<sup>12</sup>

Much, of course, must depend upon the site of the lesions and the original function of the cells and tissue in question. Convulsions were not produced in these cases, nor is there any especial evidence in the literature that convulsions are produced by lesions in either angular gyrus.

We leave the question unanswered accordingly, from the data of these two analogous cases, that catatonia or catatoniform symptoms may occasionally be mechanical in origin.

#### V. CONCLUSIONS.

The writers present two cases of chronic lesion of the left angular gyrus which received the clinical diagnosis of dementia præcox. One case showed a cyst of softening and the other a solitary tubercle. It appears that both lesions may well be of suitable age to correspond with the date of onset of the symptoms. Although not in all respects typical, the diagnosis of dementia Præcox seems to have been accepted by the Boston State Hospital officers in charge of the cases. Decidedly atypical is the age of onset of the first case, at 41; the second case had its onset at 36.

The writers are especially interested in the fact that the isolated lesions in these cases are in the parietal region, a region which has been stated in previous work from this laboratory to be correlated with catatonic symptoms. Plates are presented showing the site of the lesions.

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#### DESCRIPTION OF FIGURES.

##### FIG 1, CASE A.

Total brain sections of the two hemispheres stained by the Weigert-Pal myelin method.

Female, aged 50.

Cyst of softening of left angular gyrus of arteriosclerotic origin due to thrombosis of vessels (demonstrated in special sections).

There is, internal to the cortex lesion, an area of partial destruction of tissue, which is in part due to artefact, but may in part represent a mild degeneration of myelinated fibers. Traces of a similar process are to be seen internal to the calcarine fissure.

Careful external photography and dissection have so far not revealed other arteriosclerotic lesions or lesions of any other nature in the nervous system of this case.

##### FIG. 2, CASE B.

Male, aged 41, with onset of symptoms at 36.

Photograph of the posterior aspect of the surface of section of the brain cut frontally in the region of the angular gyrus. (The photograph was made of the tissue anterior to the plane of section.)

The tubercle is a trifle over 1 cm. in a plane parallel with the convolutional surface, and is about  $\frac{3}{4}$  cm. deep when measured from the pial surface to the inferior edge of the capsule.

No other lesions have been found elsewhere in the brain.

E. E. SOUTHARD AND M. M. CANAVAN.

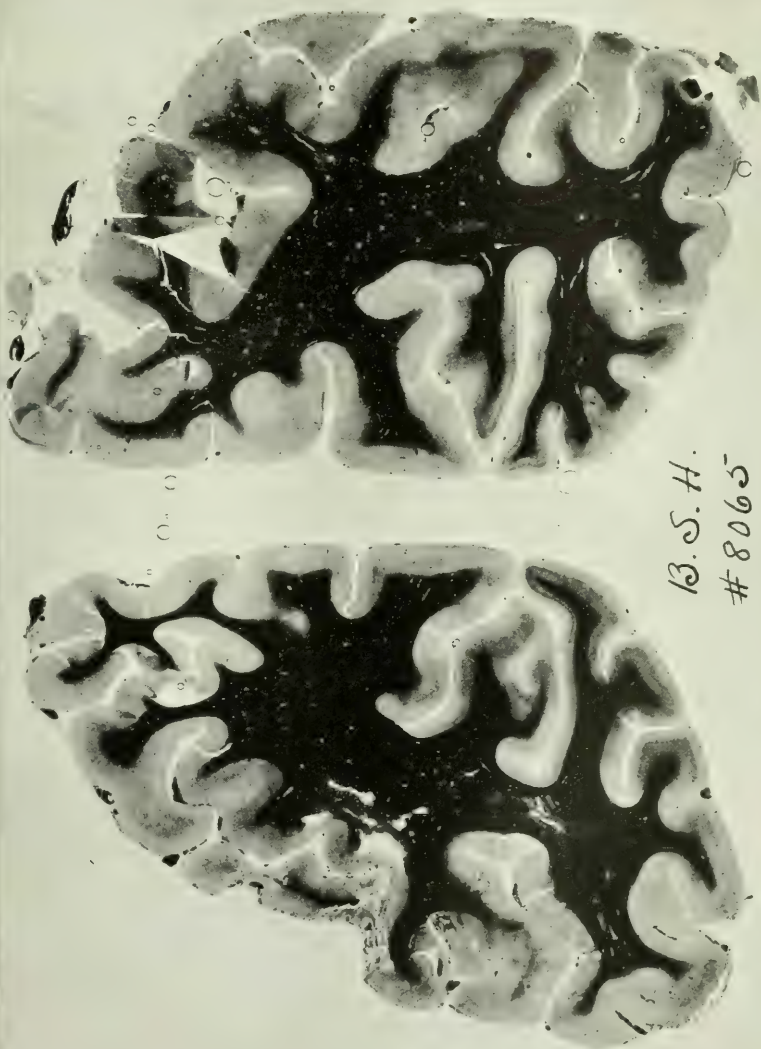


FIG. 1, CASE A.



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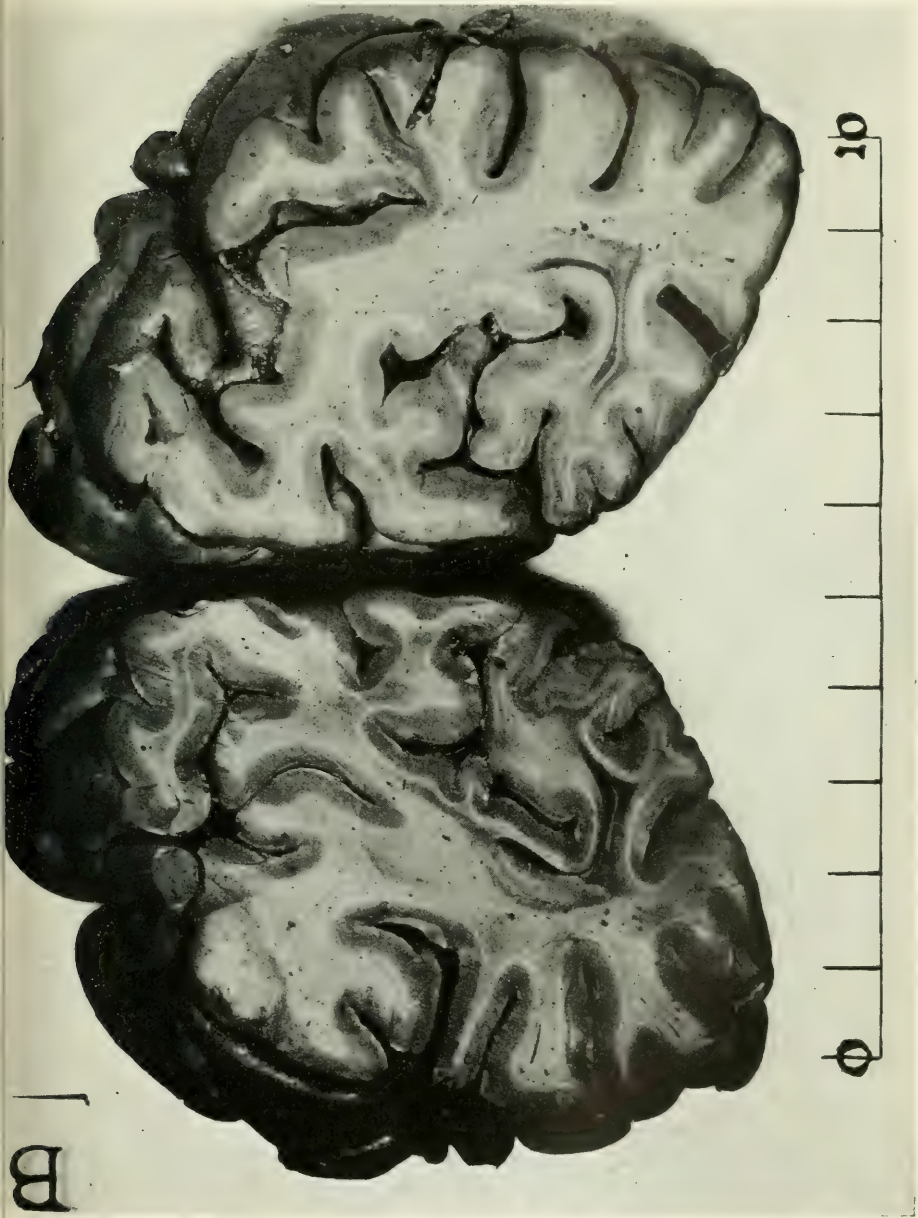


FIG. 2, CASE B.





## THE TREATMENT OF PARESIS (PRELIMINARY REPORT).

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### INTRODUCTION.

Since 1913 a considerable amount of work has been done in treating the different forms of tertiary syphilis of the central nervous system, intraspinaly with salvarsan and neosalvarsan.

At one time these diseases were looked upon as "parasyphilitic" in origin, but the researches of Noguchi, Moore, Marie and Levaditi, who have found the *treponema pallida* in the brains and cords of general paralytics and tabetics, have conclusively proven that they are active syphilitic processes.

Previous to the discoveries of the above named observers, these diseases were vigorously treated with mercury and iodides, but with little or no success. The reason that they did not respond to this treatment was not obvious until it was found that the choroid plexus has a selective action which prevents practically all drugs and antibodies from entering the cerebro-spinal fluid.

When this fact became established the various workers began to look for a method whereby medicinal agents could be mingled with the cerebro-spinal fluid and not be filtered out by the choroid plexus. Marinesco injected into the spinal arachnoid cavity the blood of syphilitic patients previously treated with salvarsan. Robertson followed the same method. Sicard and Lapointe injected one-tenth of a milligram of mercuric cyanide dissolved in five cubic centimeters of saline solution into the cerebral subarachnoid space and later tried minimal doses of neosalvarsan by the same method. Forester injected into the cerebral subarachnoid space and into the cerebral ventricles 20 cubic centimeters of the patient's own serum.

Swift and Ellis devised a method similar to that reported by Marinesco and Robertson, but with some modifications, which will be described in another part of this paper.

The method of Swift and Ellis has been tried by numerous observers in America and in Europe. Some of these men have reported excellent results, while with others the results have not been so promising.

In this institution, the New Jersey State Hospital at Morris Plains, we have treated 15 patients suffering from paresis with salvarsan and neosalvarsan. Fourteen of these patients were treated by the intraspinal method of Swift and Ellis and one by the intraspinal and intracranial methods combined. With the latter method two intracranial treatments were given at four weeks interval along with three intraspinal treatments.

#### TECHNIQUE.

The technique governing the treatments was that devised by Swift and Ellis and is as follows:

One hour after an intravenous injection of salvarsan or neosalvarsan 50 cubic centimeters of blood were withdrawn from a vein with a large-bore needle into a sterile, side-necked, 100 cc. test tube, and allowed to clot, then placed in the ice-box over night. The following morning the clear serum was drained off through the side neck into a sterile test tube, and diluted to a 40 per cent solution with normal salt, then inactivated for one-half hour in a water bath at 56 degrees centigrade.

The interval between the intravenous injection and the withdrawal of the blood was later reduced to 20 minutes, because it was demonstrated that the salvarsan content in the blood was at its height at the end of 20 minutes, and that it was impossible to find a trace of the drug at the end of an hour.

The serum being ready, a lumbar puncture was made and the cerebro-spinal fluid allowed to flow until there was a considerable interval between the drops.

A 30 cc. luer syringe, to which was attached a rubber tubing 40 centimeters long, was filled with the diluted serum and this serum allowed to flow into the tube to expel the air. The free end of this tube was then attached to the end of the lumbar puncture

needle, the syringe elevated and the serum allowed to flow into the spinal subarachnoid space.

When the entire amount of serum had flowed into the subarachnoid cavity, the patient was put into bed, the foot of which was kept in an elevated position for four hours.

The patients were allowed to get up after 24 hours, if there were no severe reactions from the salvarsan.

With the intracranial case the technique was the same as in the intraspinal cases up to the administration of the salvarsanized serum. Here a trephine opening was made in the skull over the anterior central gyrus, a small-bore, curved needle was introduced beneath the dura and the serum allowed to flow into the subdural space. Previous to the administration of the serum a lumbar puncture was made and 25 cubic centimeters of cerebro-spinal fluid withdrawn.

The reaction following the administration of salvarsan and salvarsanized serum was very slight. In some cases there was a slight elevation of temperature, in two cases there was considerable pain in the lower extremities for 24 to 48 hours, and in three others there was considerable œdema of the lips and tongue, lasting one to three hours.

Special attention was given to the carrying out of the Wassermann tests and to the cell content of the cerebro-spinal fluid. All the tests were made with plain alcoholic extract of guinea pig heart and all were controlled with known positive and negative sera.

The cell counts were made with a Fuchs-Rosenthal chamber and methyl-violet and acetic acid used as a staining agent. Two counts were made on each specimen of fluid and if there was a marked difference in these counts a third or even a fourth one was made and the average of these taken.

Noguchi's butyric acid method was employed for determining the globulin content.

#### REPORT OF CASES.

In selecting our cases for treatment we endeavored to employ those which we thought would be the most amenable to treatment, that is, the earliest cases we had and those in the best mental and physical condition.



The following gives a short abstract of each case; the clinical observations following treatments; the Wassermann reaction with the blood and cerebro-spinal fluid; the cell and globulin content of the latter, before and after treatment; the dose of salvarsan and neosalvarsan given, and the percentage and amount of serum injected into the spinal subarachnoid cavity.

1. F. R. Admitted March 19, 1913, age 38, occupation purchasing agent, chancre in 1899, onset of psychosis 14 months previous to date of admission.

*Physical Status.*—Very anæmic and poorly nourished; pupils unequal and stationary; tremors of tongue, facial muscles and extended fingers; slurring speech; ataxic gait, and marked Romberg.

*Mental Status.*—Memory greatly impaired; marked euphoria; grandiose ideas; very irritable at times and had no insight into his condition.

This patient received 10 complete treatments with neosalvarsan. The cell content of the spinal fluid was 40 before beginning treatment and 52 when last treatment was given. The Wassermann reaction with the blood and the spinal fluid remained positive throughout the course of treatment and the globulin content remained above normal.

After the first three treatments he showed considerable physical improvement. He gained in weight and assumed a more healthy color, his appetite improved and his pupillary reflexes returned to normal. He continued to improve physically throughout the course of treatment, but there was no change in his mental condition, except that he became more quiet. At present he is very much demented and takes little or no interest in his surroundings. Thirteen months have elapsed since last treatment.

2. E. K. Admitted August 20, 1913, age 50, occupation electrical engineer, chancre 17 years ago, onset of psychosis about one year previous to date of admission.

*Physical Status.*—Poorly nourished; pupils unequal, stationary and dilated; tremors of tongue, facial muscles and extended fingers; slurring speech; walked on a very wide base.

*Mental Status.*—Memory good; marked euphoria and grandiose ideas; very mischievous and was constantly interfering with the other patients; had no insight into his condition.

This patient received six treatments with salvarsan and neosalvarsan intravenously and five intraspinously. The cell content of the cerebro-spinal fluid was reduced from 39 to 15 cells per cm. The Wassermann reaction with the blood and spinal fluid remained

positive throughout the course of treatment and the globulin content remained above normal.

He began to show evidences of improvement in his mental and physical condition after the second treatment. He continued to improve rapidly and was given parole. His mind became perfectly clear and he had good insight into his past and present conditions. His speech remained unsteady, tremors of facial muscles and extended fingers persisted, pupils remained stationary and he walked on a wide base.

He was taken home by his friends on July 5, 1914.

3. E. T. Admitted July 12, 1913, age 35, occupation cab driver, admitted syphilis but date unknown, onset of psychosis about one year previous to date of admission.

*Physical Status.*—Anæmic and poorly nourished; pupils equal and stationary; tremors of facial muscles and extended fingers; slurring speech; ataxic gait, and marked Romberg.

*Mental Status.*—Memory impaired and clouded; slight euphoria; excitable and unstable; had poor insight into his condition.

This patient received seven complete treatments with salvarsan and neosalvarsan. The cell content of the cerebro-spinal fluid was reduced from 114 to 5.1 cells per cm. The Wassermann reaction with the blood and cerebro-spinal fluid ranged from two plus to four plus, the last, taken seven months and eight days after last treatment, was four plus.

He did not at any time show signs of improvement in his mental or physical condition. He died with exhaustion from convulsions 10 months after last treatment.

4. M. G. Juvenile paresis. Admitted May 24, 1913, age 19, occupation housework, onset of psychosis about one month previous to date of admission.

*Physical Status.*—Well nourished; pupils stationary and irregular; tremors of tongue and extended fingers; marked Romberg; exaggerated reflexes.

*Mental Status.*—Emotional, elated, silly demeanor; euphoric; made irrelevant replies to questions and has no insight into her condition.

This patient received four complete treatments with salvarsan. The cell content of the cerebro-spinal fluid was reduced from 37 to 17.1 cells per cm. The Wassermann reaction with the blood and spinal fluid remained positive throughout the course of treatment. The globulin content remained above normal.

There was some improvement in the patient physically, but no change was noted in her mental condition. She is very much demented. Over 13 months have elapsed since last treatment.

5. L. W. Admitted January 19, 1914, age 50, occupation housewife, denied syphilis, onset of psychosis 10 months previous to date of admission.

*Physical Status.*—Fairly well nourished; pupils equal and stationary; tremors of facial muscles and extended fingers; slurring speech; ataxic gait, and marked Romberg.

*Mental Status.*—Memory impaired for recent events; exalted, euphoric, marked grandiose ideas; sensorium keen; had no insight into her condition.

This patient received five complete treatments with salvarsan and neosalvarsan. The cell content of the cerebro-spinal fluid was reduced from 52 to 6.1 cells per cm. The Wassermann reaction with the blood remained positive throughout the course of treatment, but with the cerebro-spinal fluid it was reduced to negative after three treatments. The globulin content remained above normal. There was slight improvement in her mental condition two months after the last treatment was given and there was some improvement in her physical condition immediately following the treatment.

She was taken home by her friends on September 30, 1914, and was readmitted April 24, 1915. When readmitted she was in an excited and violent state. The Wassermann reaction with the blood and spinal fluid was four plus.

6. F. H. First admission, March 31, 1910; second admission, March 27, 1911; and third admission September 18, 1911, age 47; occupation, paper broker; admitted syphilis, but date unknown; onset of psychosis, one and one-half months previous to date of admission.

*Physical Status.*—Very poorly nourished; is quite feeble and spends most of his time in bed; control of sphincters lost; pupils stationary and unequal; slurring speech; tremors of facial muscles and extended fingers.

*Mental Status.*—Memory very poor; disoriented for time and place; euphoric; had grandiose ideas, and had no insight into his condition.

This patient received five treatments with salvarsan and neosalvarsan. The first and third were given intracranially and the others were given intraspinously.

The Wassermann reaction with the blood and cerebro-spinal fluid was reduced to negative, but the blood serum later gave a positive reaction. The globulin content of the spinal fluid remained above normal.

After the first two treatments he was able to be up and about the wards and out in the yard; control of sphincters returned, and the gained considerably in weight. He became very much brighter and was able to recognize the various physicians and attendants. His insight into his condition did not improve.

He remained in this condition for 10 months, then developed convulsions and died three days later.

7. A. D. Admitted February 18, 1914, age 48; occupation, laborer; denied syphilis; onset of psychosis, six months previous to date of admission.

*Physical Status.*—Nutrition fair; pupils irregular and stationary; tremors of tongue and facial muscles; slurring speech; ataxic gait, and marked Romburg.

*Mental Status.*—Memory impaired; ideation blunted, incoherent and unstable; no euphoria or grandiose ideas.

This patient received five complete treatments with salvarsan. The cell content of the cerebro-spinal fluid was reduced from 80.1 to 29.2 cells per cm. The Wassermann reaction remained positive throughout the course of treatment and the globulin content of the spinal fluid remained above normal.

After three treatments it became necessary to confine him to bed because of progressive weakness. He died with convulsions three weeks after last treatment.

Autopsy revealed an extensive curdy degeneration of the basil ganglia, which extended into the subcortical white substance. The caudate and lenticular nuclei were entirely destroyed and there remained only a small part of the optic thalami. There was an extensive endarteritis of all the cerebral vessels.

8. E. M. Admitted February 24, 1914, age 28; occupation, photographer; admitted syphilis; onset of psychosis, about two months previous to date of admission.

*Physical Status.*—Very poorly nourished; pupils equal and stationary; very slight tremors of facial muscles; exaggerated reflexes; slurring speech, and marked Romberg.

*Mental Status.*—Memory impaired for past and recent events; marked exaltation and euphoria; grandiose ideas; very noisy, and had no insight into his condition.

This patient received three complete treatments with salvarsan. The cell content of the cerebro-spinal fluid was reduced from 40 to 10 cells per cm. The Wassermann reaction with the blood and cerebro-spinal fluid remained positive throughout and the globulin content of the latter remained above normal.



Four months after the last treatment he began to show considerable improvement in his condition. He became quiet and rational and was able to do considerable work around the ward. He was able to carry on a coherent conversation and had a good insight into his previous condition. Memory improved. He was discharged five months after the last treatment was given.

9. C. A. Admitted November 13, 1913, age 40; occupation, laborer; syphilis denied; onset of psychosis, some weeks previous to date of admission.

*Physical Status.*—Fairly well nourished; pupils stationary and equal; tremors of facial muscles and tongue; slurring speech; marked Romberg, and ataxic gait.

*Mental Status.*—Memory impaired; was dull, stupid, unstable and depressed; sensorium blunted, and had no insight into his condition.

This patient received five complete treatments with salvarsan. The cell content of the cerebro-spinal fluid was reduced from 113 to eight cells per cm. The last Wassermann reaction with the blood was negative. The cerebro-spinal fluid gave a positive Wassermann reaction throughout the course of treatment.

He gradually became weaker, developed convulsions and died one week after last treatment. Permission for autopsy not granted.

10. J. B. Admitted May 21, 1913, age 43; occupation, machinist; chancre 12 years ago; onset of psychosis, six weeks previous to date of admission.

*Physical Status.*—Fairly well nourished; pupils unequal and react sluggishly; tremors of tongue, facial muscles and hands; slurring speech, and marked Romberg.

*Mental Status.*—Memory good; marked euphoria; expansive and grandiose ideas; had fair insight into his condition.

This patient received eight complete treatments with salvarsan and neosalvarsan. The cell content of the spinal fluid was reduced from 56 to 12.2 cells per cm. The Wassermann reaction with the blood serum remained positive throughout the course of treatment, but was reduced to negative with the cerebro-spinal fluid, which became positive later. The globulin content remained above normal.

After three treatments his euphoria and grandiose ideas disappeared. He gained a few pounds in weight and assumed a more healthy color. He became anxious to continue treatment, so he could "get well and go home." Was able to do work which

required considerable skill. Tremors of muscles improved somewhat.

Nine months have elapsed since last treatment and he is regressing very slowly, both mentally and physically.

11. F. C. Admitted March 26, 1914, age 27; occupation, bartender; chancre 10 years ago; onset of psychosis, five days (?) previous to date of admission.

*Physical Status.*—Nutrition fair; pupils unequal and stationary; tremors of tongue, facial muscles and extended fingers; reflexes exaggerated, and marked Romberg.

*Mental Status.*—Memory impaired; was excited and profane; sensorium keen; conversation, incoherent; marked euphoria and grandiose ideas; had no insight into his condition.

This patient received three complete treatments with salvarsan. The cell content of the cerebro-spinal fluid was reduced from 80.1 to 13.1 cells per cm. The Wassermann reaction with the blood and cerebro-spinal fluid remained positive and the globulin content of the latter remained above normal.

Immediately following the treatment he became quite quiet and had a fair insight into his condition, but one week after last treatment he became very excited and destructive, so that it became necessary to place him on a violent ward, where he remained until taken to a private sanatorium, December 15, 1914.

His nutrition was greatly improved and his mental condition was the same as when admitted.

12. R. C. Admitted July 12, 1913, age 35; occupation, police officer; chancre nine years ago; onset of psychosis, eight weeks previous to date of admission.

*Physical Status.*—Nutrition fair; pupils equal and react to distance, but not to light; tremors of facial muscles and extended fingers; slurring speech, and ataxic gait.

*Mental Status.*—Memory impaired; expansive and grandiose ideas; impulsive, restless and hypochondriacal delusions; had no insight into his condition.

This patient received seven complete treatments with salvarsan and neosalvarsan. The cell content of the cerebro-spinal fluid was reduced from 36.2 to 10 cells per cm. The Wassermann reaction with the blood and the cerebro-spinal fluid shifted between negative and four plus. The globulin content of the latter remained above normal.

There has been no improvement in his mental condition; he is irritable at times, but spends the greater part of his time sitting about the ward and talking and laughing to himself. He has no insight into his condition.

He has put on considerable weight and has a very healthy appearance.

13. C. K. Admitted June 12, 1914, age 45; occupation, broker; chancer 14 years ago; onset of psychosis, about one week previous to date of admission.

*Physical Status.*—Poorly nourished; pupils stationary; slurring speech; tremors of tongue; ataxic gait, and marked Romberg.

*Mental Status.*—Excited and violent; exalted; memory poor; had hallucinations, illusions and delusions; claimed he represented Deity.

This patient received six complete treatments with salvarsan and neosalvarsan. The cell content of cerebro-spinal fluid was quite irregular. The Wassermann reaction with the blood remained positive throughout the course of treatment, and with the cerebro-spinal fluid it changed from two plus to four plus. The globulin content remained above normal.

He gained 25 pounds in weight, but there has been no change in his mental condition. He has delusions and hallucinations and is very tremulous. He has no insight into his condition.

14. J. W. Admitted May 25, 1914, age 33; occupation, car inspector; chancer 15 years ago; onset of psychosis, five months previous to date of admission.

*Physical Status.*—Very anæmic and poorly nourished; pupils equal and react readily; very marked tremors of tongue, facial muscles and extended fingers; speech very slurring, making it difficult to understand him; gait is very ataxic and he could scarcely walk without assistance; exaggerated reflexes.

*Mental Status.*—Memory quite good; marked euphoria and ideas bordering on the grandiose type; had some insight into his condition.

This patient received five treatments with salvarsan and bichloride of mercury. The cell content of the cerebro-spinal fluid was reduced from 89.2 to six cells per cm. The Wassermann reaction with the blood and cerebro-spinal fluid remained positive throughout the course of treatment. The globulin content remained above normal.

## TREATMENTS AND BIO-CHEMICAL FINDINGS.

## 1. F. R.

Date.	W. R. Blood.	C.-Spinal Fluid.			Medicinal Agent.	Intra-venous Dose.	Intraspineous Treatment.	
		W. R.	Glob.	Cells.			Amt.	Serum.
Dec. 4, '13.	++++	++++	+	40	Neosalvarsan.	gm.	cc.	%
Dec. 17, '13.	++++	++++	....	....	"	.45	30	40
Dec. 29, '13.	++++	++++	+	35	"	.45	30	40
Jan. 15, '14.	++++	++++	....	....	"	.45	30	40
Jan. 29, '14.	++++	++++	+	14.2	"	.9	30	40
Feb. 18, '14.	++++	++++	+	3.2	"	.9	40	50
Mar. 9, '14.	++++	++++	+	28.2	"	.45	30	40
Mar. 18, '14.	++++	++++	+	13	"	.45	30	40
Apr. 1, '14.	++++	++++	+	52	"	.9	30	40
Apr. 30, '14.	++++	....	....	....	.....	....	....	....
May 20, '14.	++	....	....	....	.....	....	....	....
Oct. 21, '14.	+++	....	....	....	.....	....	....	....
Dec. 28, '14.	—	++++	Blood	cells.	.....	....	....	....

## 2. E. K.

Dec. 4, '13.	++++	++++	+	39	Neosalvarsan.	.45	30	40
Dec. 17, '13.	++++	++++	....	....	"	.45	30	40
Jan. 1, '14.	++++	++++	+	30	"	.45	30	40
Jan. 15, '14.	++++	++++	+	31	"	.45	30	40
Jan. 29, '14.	++++	++++	+	42	"	.9	30	40
Feb. 8, '14.	++++	++++	+	7	"	.9	40	50
Mar. 9, '14.	++++	....	....	....	.....	....	....	....
Mar. 16, '14.	....	++++	+	11.1	.....	....	....	....
Apr. 20, '14.	++++	++++	+	15	.....	....	....	....
July, 4, '14.	++++	....	....	....	.....	....	....	....

## 3. J. T.

Jan. 15, '14.	++	++++	+	114	Neosalvarsan.	.45	30	40
Jan. 29, '14.	++	++++	+	60	"	.45	30	40
Feb. 12, '14.	++	++	+	50	"	.45	30	40
Mar. 4, '14.	++++	++++	+	10	"	.45	30	40
Mar. 18, '14.	+++	.....	Blood	cells.	"	.45	30	40
Apr. 1, '14.	++++	+++	+	17	"	.9	40	50
May 20, '14.	++++	++++	+	16	"	.9	40	50
Dec. 28, '14.	++++	++++	+	5.1	.....	....	....	....

## 4. M. G.

Jan. 26, '14.	++++	++++	+	37	Neosalvarsan.	.45	30	40
Feb. 6, '14.	++++	++++	+	28.2	"	.45	30	40
Mar. 7, '14.	++++	++++	+	7.2	"	.45	30	40
Mar. 21, '14.	++++	++++	Blood	cells.	"	.45	30	40
Dec. 28, '14.	++++	++++	+	17.1	.....	....	....	....



## 5. L. W.

Date.	W. R. Blood.	C.-Spinal Fluid.			Medicinal Agent.	Intra- venous Dose.	Intraspinal Treatment.	
		W. R.	Glob.	Cells.			Amt.	Serum.
Feb. 6, '14.	+++++	+++++	+	52	Neosalvarsan.	gm. .45	cc. 40	% 50
Mar. 7, '14.	+++++	+++++	+	18	"	.45	40	50
Mar. 21, '14.	+++++	++	+	9	"	.45	30	40
Mar. 30, '14.	+++++	—	+	5	Salvarsan.	.6	30	40
Apr. 4, '14.	+++++	—	+	6.1	"	.6	30	40
Apr. 28, '14.	+++++	.....	.....	.....	.....	.....	.....	.....

## 6. F. H.

Feb. 24, '14.	+++++	+++++	Blood	cells.	Neosalvarsan.	.45	25	40
Mar. 12, '14.	+++++	+++++	+	9	"	.45	30	40
Mar. 27, '14.	+++++	+++++	.....	.....	"	.45	35	40
Apr. 16, '14.	.....	+++++	.....	.....	Salvarsan.	.3	40	40
June 3, '14.	—	+	.....	.....	"	.6	30	50
Dec. 28, '14.	+++++	—	+	4	.....	.....	.....	.....

The first and third treatments were given intracranially.

## 7. A. D.

Mar. 4, '14.	+++++	+++++	+	80.1	Salvarsan.	.3	30	40
Mar. 16, '14.	+++++	+++++	+	19	"	.3	30	40
Apr. 1, '14.	+++++	+++++	+	14.2	"	.3	30	40
Apr. 20, '14.	+++++	+++++	+	11.2	"	.3	30	40
May 6, '14.	+++++	+++++	+	29.2	"	.6	30	40

## 8. E. M.

Mar. 4, '14.	+++++	+++++	+	40	Salvarsan.	.3	30	40
Mar. 16, '14.	+++++	+++++	+	18	"	.3	30	40
Apr. 1, '14.	+++++	+++++	+	10	"	.3	30	40
Apr. 20, '14.	+++++	.....	.....	.....	.....	.....	.....	.....
Aug. 31, '14	+++++	.....	.....	.....	.....	.....	.....	.....

## 9. C. A.

Mar. 18, '14.	+++++	+++++	+	113	Salvarsan.	.3	30	40
Apr. 1, '14.	++	+++++	+	98.2	"	.3	30	40
Apr. 20, '14.	++++	.....	.....	.....	.....	.....	.....	.....
May 6, '14.	++++	++++	+	61.2	Salvarsan.	.3	30	40
May 18, '14.	.....	+++++	+	27.1	"	.6	40	50
June 3, '14.	—	+++++	+	8	"	.6	40	50

## 10. J. B.

Apr. 9, '14.	+++++	+++++	+	56	Salvarsan.	.3	30	50
Apr. 20, '14.	+++++	+++++	.....	.....	"	.6	30	40
May 6, '14.	+++++	+++++	+	11.2	"	.6	30	50
May 18, '14.	.....	+++++	+	14	"	.6	40	50
June 3, '14.	+++++	+++++	+	6.2	"	.6	40	50
June 17, '14.	+++++	—	+	9.2	"	.6	40	50
July 13, '14.	+++++	++	.....	.....	"	.6	40	50
July 27, '14.	+++++	+++++	.....	.....	Neosalvarsan.	.9	50	50
Oct. 21, '14.	+++++	.....	.....	.....	.....	.....	.....	.....
Dec. 28, '14.	+++++	+++++	+	12.2	.....	.....	.....	.....

## 11. F. C.

Date.	W. R. Blood.	C.-Spinal Fluid.			Medicinal Agent.	Intra- venous Dose.	Intraspinal Treatment.	
		W. R.	Glob.	Cells.			Amt.	Serum.
June 3, '14	++++	++++	+	80.1	Salvarsan.	gm.	cc.	%
June 17, '14.	++++	++++	+	13.1	"	.6	30	40
July 10, '14.	++++	++++	+	12	"	.6	30	40

## 12. R. C.

July 1, '14.	++++	—	+	36.2	Neosalvarsan.	.9	30	40
July 13, '14.	+	—	+	24.2	Salvarsan.	.6	30	40
July 27, '14.	.....	.....	+	11.1	"	.6	30	40
Dec. 28, '14.	++++	++++	+	15.1	.....	.....	.....	.....
Mar. 17, '15.	.....	++++	+	10.1	Salvarsan.	.6	35	40
Mar. 30, '15.	++++	++++	+	9.2	"	.6	35	50
Apr. 12, '15.	.....	.....	+	10	"	.6	35	50
Apr. 28, '15.	.....	.....	Blood cells.		"	.6	35	50

## 13. C. K.

July 13, '14.	++++	++	Blood cells.	Neosalvarsan.	.9	30	40	
July 27, '14.	++++	++	+	16	"	.9	30	40
Oct. 31, '14.	++++	.....	.....	.....	.....	.....	.....	.....
Dec. 28, '14.	++++	++++	+	32	.....	.....	.....	.....
Mar. 17, '15.	.....	++++	+	11.2	Salvarsan.	.6	35	40
Mar. 30, '15.	++++	++++	Blood cells.	"	.6	35	50	50
Apr. 12, '15.	++++	—	+	27.2	"	.6	35	50
Apr. 28, '15.	.....	.....	+	5.2	"	.6	25	50

## 14. J. W.

Mar. 8, '15.	++++	++++	+	89.2	Salvarsan.	.6	40	50
Mar. 15, '15.	.....	++++	+	14.1	Corrosive Sublimate.	....	gm. .0013	cc. 50
Mar. 30, '15.	++++	++++	+	17.1	Salvarsan.	.6	35	50
Apr. 12, '15.	++++	++++	+	12.1	"	.6	35	50
Apr. 28, '15.	.....	.....	+	6	"	.6	35	50

## 15. F. H.

Mar. 17, '15.	++++	++++	+	49	Salvarsan.	.6	35	40
Mar. 30, '15.	++++	++++	Blood cells.		"	.6	35	50
Apr. 12, '15.	++++	—	+	24	"	.6	35	50
Apr. 28, '15.	.....	.....	+	8.1	"	.6	35	50

As yet there has been no change in his mental and very little in his physical condition. He has gained two pounds in weight and he can walk somewhat better than formerly.

15. F. H. Admitted February 25, 1915, age 48; occupation, stationary engineer; denied syphilis; onset of psychosis, six months previous to date of admission.

*Physical Status.*—Well nourished; pupils equal, contracted and stationary; tremors of tongue, facial muscles and extended fingers; ataxic gait; slight slurring speech.

*Mental Status.*—Memory fairly good; somewhat exalted, grandiose ideas; oriented for time and place, and had poor insight into his condition.

This patient received four treatments with salvarsan. The cell content of the cerebro-spinal fluid was reduced from 49 to 8.1 cells per cm. The Wassermann reaction with the blood remained positive throughout the course of treatment, but it was reduced to negative with the spinal fluid. The globulin content of the latter remained above normal.

After receiving two treatments, he had 14 convulsions in six days and since that time he has been very delusional. He has lost two pounds in weight.

#### WASSERMANN REACTIONS FOLLOWING TREATMENTS.

In our series of cases we were unable to obtain a persistent negative Wassermann reaction, either with the blood or the cerebro-spinal fluid. Some cases would give a weakly positive or negative reaction for a short time, but they always returned to positive.

It is well known that any case of paresis may give a positive reaction one day and a negative the next. A negative reaction may even persist for two or three months without any improvement whatever in the patient's condition.

#### CELL CONTENT OF THE SPINAL FLUID.

Some doubt exists as to the origin of the cells found in the cerebro-spinal fluid in cases of cerebro-spinal syphilis. Some observers believe that they are derived from the fixed tissue cells, but generally now it is accepted that they come from the blood, the

plasma cell being a stage in the process of degeneration of the lymphocyte.

The presence of these cells in the cerebro-spinal fluid, if they are in excess of the normal numbers, signifies an inflammatory process of some part of the meninges covering the central nervous system.

The reduction in the number of cells, following intraspinous treatments, seems to have little or no significance. A repeated lumbar puncture will in most cases reduce the cell count to normal, but there are some cases in which this procedure does not affect the cell count at all, in fact, has quite the opposite effect.

The fluctuations in the cell count, following repeated lumbar punctures, correspond very well with the course taken by them after intraspinous treatments.

In an article written by Mitchell, Darling and Newcomb are given the variations in the cell count in untreated cases. Some of their cases show a very great increase in the number of cells, while others show a steady decrease. We have never been able to obtain so great a variation in our cases, but the changes which may take place from time to time are demonstrated very well.

The following charts illustrate the changes which we have observed in the cell content of the cerebro-spinal fluid of some of our patients after repeated lumbar punctures and intraspinous treatments.

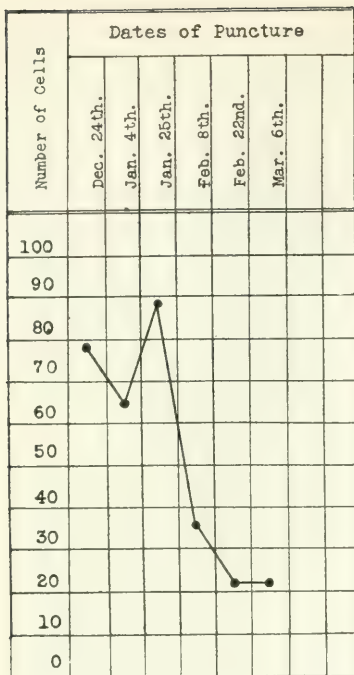
#### NUTRITIONAL CHANGES.

The improvement in nutrition, which is observed in so many cases, can be readily attributed to the tonic effect of the arsenic. It is reported by Wechselsmann that cases treated with salvarsan invariably show this improvement independent of any change in the course of the disease.

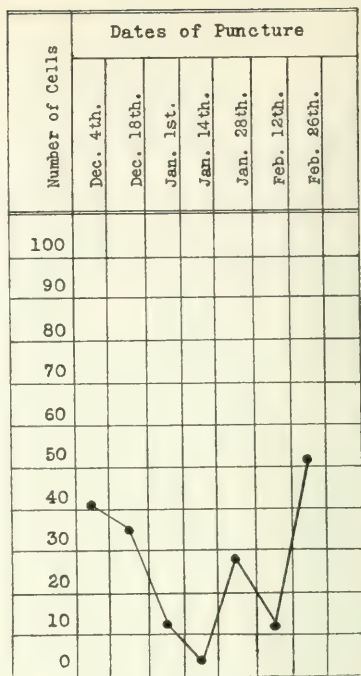
#### THE DISTRIBUTION OF THE SALVARSANIZED SERUM OVER THE SURFACE OF THE BRAIN.

There is very little doubt about the salvarsanized serum reaching the convexities of the hemispheres, when administered by the intraspinous route. When the serum is introduced beneath the cerebral dura or directly into the lateral ventricles it immediately reaches the place for which it is intended, but it is a long and diffi-

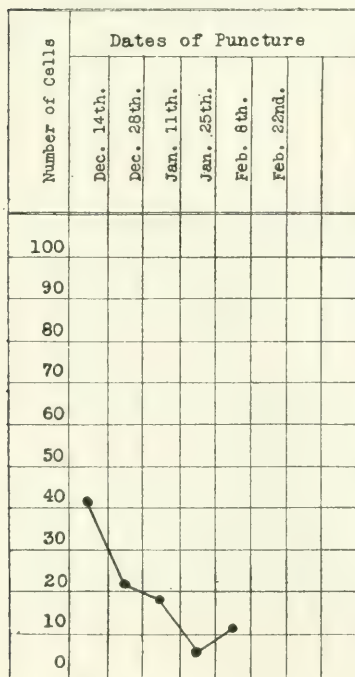




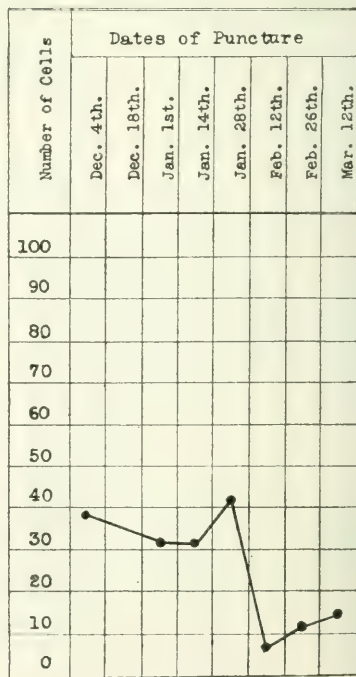
UNTREATED CASE NO. 1.



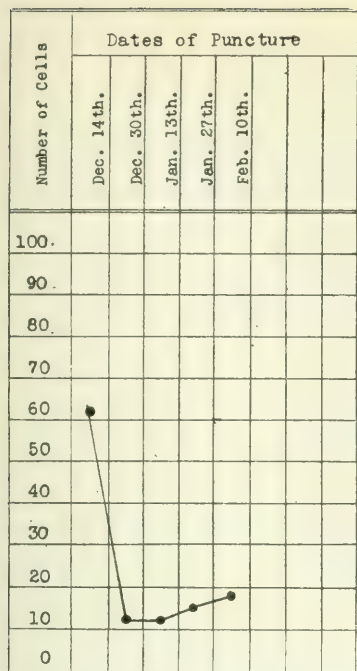
TREATED CASE NO. 1.



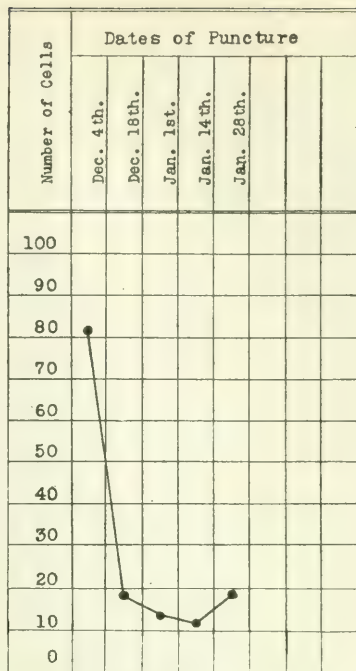
UNTREATED CASE NO. 2.



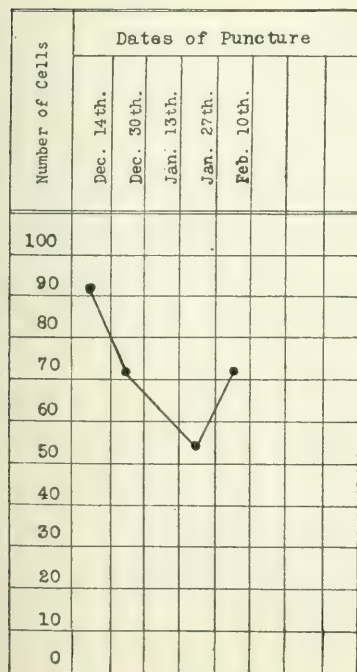
TREATED CASE NO. 2.



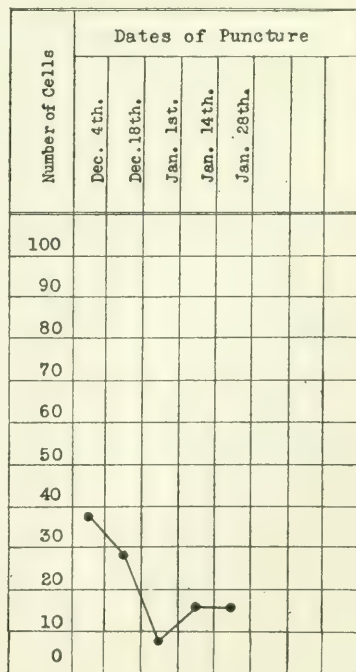
UNTREATED CASE NO. 3.



TREATED CASE NO. 3.



UNTREATED CASE NO. 4.



TREATED CASE NO. 4.

cult operation when compared with the intraspinous method, and does not seem to have any advantages over the latter, which will give the same results if a little pressure is exerted when giving the injections.

The investigations of Weed make this point quite clear. He demonstrated that when ferrocyanide solutions are injected into the spinal arachnoid cavity and continued for one hour under a pressure slightly above normal (120 to 180 mm. of water), the granules are found in the basilar cisternæ, but very few are found over the convexities of the hemispheres. The same results are obtained by withdrawing the cerebro-spinal fluid and injecting an equal amount of ferrocyanide solution. If the injections are continued for several hours the granules are equally distributed over the entire cerebral subarachnoid space, and 10 cubic centimeters injected under pressure will give the same results. Therefore, when an intraspinous treatment of 30 to 40 cubic centimeters is given under moderate pressure, there is little doubt as to its reaching the convexities of the hemispheres.

#### EFFICIENCY OF THE TREATMENT.

The great imperfection of this method seems to lie in the small quantity of salvarsan given and in the long intervals that must elapse between its administrations. A larger dose of salvarsan is too irritating and cannot be borne by the patient, and if the treatments are given at shorter intervals one is simply withdrawing a part of the serum last injected, because it takes nearly two weeks for the serum to be absorbed from the spinal arachnoid space.

The spirochætes that survive the first dose have an opportunity to multiply and continue their work of destruction before the next treatment can be given.

A patient with a very small lesion in the brain at the beginning of a series of treatments will have a much larger one before the invading organisms are finally killed off.

#### SUMMARY AND CONCLUSIONS.

The largest number of intraspinous treatments given to one individual was 10 and the smallest number three.

Three of these patients showed mental and physical improvement; five showed physical improvement only; two died during the course of treatment; two died 10 and 13 months, respectively, after treatments were discontinued; the remainder showed no improvement whatever.

Of the three who showed mental and physical improvement one was discharged and still remains in good physical and mental condition, having "returned to work and received a substantial raise in salary," over 14 months having elapsed since last treatment. One showed the first signs of improvement three months after receiving last treatment. He was taken home by his friends and we have lost track of him. The third died with convulsions 10 months after treatment.

The number of treatments which we have given to each patient was insufficient to reduce the intensity of the Wassermann reaction either with the blood or the cerebro-spinal fluid. The negative reactions we have obtained may be seen in almost any case of untreated paresis.

The number of cells in the cerebro-spinal fluid change with each lumbar puncture independent of any medicinal agent. It is generally reduced to a greater or less extent, but in some instances it may be increased and the changes in the number of cells, following intraspinal treatments, are the same as those following lumbar puncture without treatment.

The improvements which we have observed following our treatments may be seen among the same number of paretics who have received no special treatment.

The number of treatments we have given are insufficient to control the course of the disease in patients who are as far advanced as they usually are when admitted to institutions for the insane.

We believe that the amount of salvarsan which can be introduced safely into the central nervous system is too small, and the intervals are too long between the treatments, to be of any great value in moderately advanced cases.

The intracranial method seems to be unnecessary. The same results can be obtained with the intraspinal method.



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## THE INTRA-CRANIAL INJECTION OF SALVARSANIZED SERUM.

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Laying aside as foreign to the purposes of this paper any consideration of well-known past or present methods of treating general paresis, I will proceed at once to the presentation of the subdural injection of salvarsanized serum in the treatment of this condition. The first suggestion as to the possible efficacy of treating general paresis sub-durally with some form of salvarsanized serum seems to have come from Levaditi and Martel of Paris, in December, 1913. Later on, in the *Bulletin de la Société de Médecine Mentale*, they describe their technic of the method, and report the results of treatment in ten cases. Their procedure is to salvarsanize a rabbit *in vitro*, and after bleeding to inject 5 cc. of the serum obtained through a trephine hole bored in the anterior temporal region of the skull. They claim marked improvement, both mental and physical, in all ten cases and signify their intention of continuing the treatment.

Although we owe our inspiration to their suggestion our technique differs widely. In a paper presented before this society at its Baltimore meeting last year we discussed the rationale of the subdural method and our reason for undertaking it; this including necessarily the results of other methods, such as intraspinal, intraventricular, etc., so it is not necessary to go into these again here. A brief résumé of the technic of our method is, however, in order.

On the day previous to operation the patient is given a full dose of salvarsan intravenously. The blood drawn from the patient's arm is prepared according to the well-known Swift and Ellis procedure. At operation the patient is given an ether anesthetic, a small skin flap is turned back in the anterior temporal region well above the ear and a trephine hole about 1 cm. in diameter bored in the skull by means of a Hudson drill. A lumbar puncture is then

made and about 30 to 40 cc. of spinal fluid withdrawn. A bent salvarsan needle is then carefully pushed through the dura and 40 to 50 cc. of the serum allowed to flow in by gravity. After two weeks the procedure is repeated upon the opposite side. Subsequent applications are made at intervals of two weeks, the same trephine hole being used for the injection of the fluid.

A year ago we were able to make a preliminary report upon six cases treated in this way. At the present writing the series has been increased to 14, each individual of which has had from four to 12 treatments.

CASE I.—Age, 33; duration of disease one year. Grandiose ideas marked. Judgment defect marked. No insight. Pupillary abnormalities present. K. J. exaggerated. Blood Wassermann, 4 plus; spinal fluid Wassermann, 4 plus; cells, 82.5 per cm.; R. J., 4 plus. (Six treatments.) *Present Status:* Patient is normal mentally. Insight perfect. Has gone back to his occupation as druggist. On leaving the hospital the Wassermann reaction in the blood was minus; spinal fluid Wassermann, 2 plus; cell count, zero; R. J., 2 plus. Patient has been normal for seven months.

CASE II.—Age, 45; duration of disease, 18 months. Grandiose ideas. Moderate judgment defect. Moral defect very marked. K. J. increased. Pupillary disturbances very marked. No abnormal reflexes. Coordination very poor. Blood Wassermann, 2 plus; spinal fluid Wassermann, 4 plus; cells, 10 per cm.; R. J., 4 plus. (Six treatments.) *Present Status:* Judgment good; insight good. Has gone back to his occupation as laundryman. Blood Wassermann, minus; spinal fluid Wassermann, 4 plus; cells, 3.5 per cm., R. J., 1 plus. Has been well for seven months.

CASE III.—Age, 40; duration of disease, three months. Moderate elation. Marked indifference to social obligations; disoriented; no insight. Pupillary disturbances. K. J. exaggerated. Coordination poor. Blood Wassermann, minus; spinal fluid Wassermann, 3 plus; cells, 39.5 per cm.; R. J., 2 plus. (Six treatments.) *Present Status:* Normal emotional tone. Sense of responsibility good. Insight good. Has gone home and is working at his occupation as tanner. Blood Wassermann, minus; spinal fluid Wassermann, minus; cells, 1 per cm.; R. J., 2 plus. Has been well for six months.

CASE IV.—Age, 33; duration of disease, two years. Had a fair remission in 1913 with impaired judgment and no insight. Second admission, April, 1914. Convulsions, stuporous; marked emaciation and muscular paresis. Blood Wassermann, 3 plus; spinal fluid Wassermann, 2 plus; cells, 83.5 per cm., R. J., 4 plus. (Six treatments.) *Present Status:* Normal mentally, robust and active. Has gone back to his former occupation as salesman for an electric company. Blood Wassermann, minus; spinal fluid Wassermann, 1 plus; cells, 2 per cm.; R. J., minus. Has been well for nine months.

CASE V.—Age, 48; duration of disease, three weeks. Grandiose ideas marked. Disoriented and confused. Pupillary disturbances. Increased K. J. Coordination poor. Wassermann in blood, 4 plus; spinal fluid Wassermann, 4 plus; cells, 2.5 per cm.; R. J., 4 plus. (Six treatments.) Patient returned to normal mentality. Remained well for five months. Sudden right-sided convulsions of unknown origin. Died. *Autopsy*: Gross and microscopical changes suggesting paresis. No spirochæte found. A large cyst, apparently of long standing, found under left motor area. At time of death, blood Wassermann, 2 plus; spinal fluid Wassermann, 4 plus; cells, negative; R. J., 3 plus.

CASE VI.—Age, 35; duration of disease, one year. Apparently marked dementia. Delusions of grandeur marked. Muscular paresis marked. Pupillary disturbances present. Increased K. J. Coordination very poor. Blood Wassermann, 2 plus; spinal fluid Wassermann, 4 plus; cells, 109 per cm.; R. J., 4 plus. (Seven treatments.) Patient practically normal for 11 months and was allowed home. Bad relapse after one month and was brought back to the hospital. Patient was again put under treatment and showed immediate response. After five additional treatments he is practically normal again. Blood Wassermann, 4 plus; spinal fluid Wassermann, 4 plus; cells, negative; R. J., 4 plus.

CASE VII.—Age, 47; duration of disease, two years. Delusions of grandeur very marked. Marked deterioration of judgment and moral sense. Confused, noisy and emaciated. Pupillary disturbances present. Increased K. J. Blood Wassermann, 2 plus; spinal fluid Wassermann, 4 plus; cells 3.5 per cm.; R. J., 4 plus. (Four treatments.) The patient responded well to treatment and became quiet and tractable. Physical improvement was marked. Broncho-pneumonia after three months. Died. *Autopsy*: Broncho-pneumonia; gross and microscopical changes indicating paresis. At time of death, blood Wassermann, minus; spinal fluid Wassermann, 1 plus; cells, negative; R. J., 2 plus.

CASE VIII.—Age, 40; duration of disease, two years. Delusions, none. Loss of memory for recent events very marked. Loss of acquired knowledge very marked. Speech defects marked. Coordination poor. Patient has had several intraspinous treatments before coming to this hospital without effect. On admission, blood Wassermann, 4 plus; spinal fluid Wassermann, 3 plus; cells, 12 per cm.; R. J., 4 plus. (Six treatments.) *Present Status*: Patient's mentality is practically normal. He is active, interested in his surroundings and has good insight into his condition. The speech defect is very much improved. Patient has parole of the grounds. Blood Wassermann, 3 plus; spinal fluid Wassermann, 1 plus; cells, 12 per cm.; R. J., 4 plus.

CASE IX.—Age, 30; duration of disease, six months. Silly, talkative, disoriented and confused. Memory for recent events very poor. Has had several intraspinous treatments before admission. Blood Wassermann,



minus; spinal fluid Wassermann, 4 plus; cells, 7 per cm.; R. J., 4 plus. (Five treatments.) *Present Status:* Judgment is still poor and is rather silly. Great improvement in memory for recent events. There are no further chemical or biological findings.

CASE X.—Age, 47; duration of disease, three months. Moderately exalted. Marked lack of judgment and moral sense. Pupillary disturbances present. Coordination poor. Blood Wassermann, 3 plus; spinal fluid Wassermann, 4 plus; cells, 25.5 per cm.; R. J., 4 plus. (Six treatments.) *Present Status:* Memory much improved. Coordination much improved. Not much improvement in judgment or moral sense. Blood Wassermann, 3 plus; spinal fluid Wassermann, 4 plus; cells, negative.

CASE XI.—Age, 53; duration of disease, two years. At time of treatment patient was bed-ridden, unable to talk or help himself in any way. Blood Wassermann, 3 plus; spinal fluid Wassermann, 4 plus; cells, 30 per cm., R. J., 4 plus. (Four treatments.) Patient became able to talk a little and to feed himself. No further change. Blood Wassermann, 3 plus; spinal fluid Wassermann, 4 plus.

CASE XII.—Age, 34; duration of disease, two years. Disoriented and confused. Marked delusions of grandeur. Marked muscular paresis. Pupillary disturbances. Marked incoordination. Blood Wassermann, 4 plus; spinal fluid Wassermann, 4 plus; cells, 11 per cm.; R. J., 1 plus. (Five treatments.) *Present Status:* Fair improvement mentally and physically. Well oriented. Takes an interest in his surroundings. Blood Wassermann, 2 plus; spinal fluid Wassermann, 4 plus; cells, not taken; R. J., 1 plus.

CASE XIII.—Age, 35; duration of disease, four years. Disoriented, demented and silly. Marked muscular paresis. Pupillary disturbances. Coordination poor. Speech defect marked. Wassermann, in blood, doubtful; spinal fluid Wassermann, 2 plus; cells, 5.5 per cm.; R. J., 2 plus. (Four treatments.) No improvement. No further chemical or biological findings.

CASE XIV.—Age, 40; duration of disease one year. Disoriented; confused. Delusions of grandeur very marked. Coordination very poor. Speech defect marked. Pupillary disturbances present. No chemical or biological findings. (Eight treatments.) *Present Status:* Patient shows a practically normal mentality with good insight into his former condition. Coordination and speech much improved. Blood Wassermann, 3 plus; spinal fluid Wassermann, 4 plus. No further laboratory findings.

To sum up, of the 14 cases, five improved sufficiently to be able to go back to their work and to date have remained well for from seven to 11 months. At the end of 11 months, one of these cases had a bad relapse. He was immediately brought back to the hospital and (we think this a point much in favor of the

efficacy of the treatment) he responded immediately to additional applications of the serum. At present he is well, mentally and physically, and has parole of the grounds. Three other well-developed cases have improved sufficiently to be put upon parole of the grounds and are doing efficient work about the hospital. Three others have shown fairly marked physical and mental improvement but cannot as yet be trusted at large. Two have died. In both of these cases, autopsies were performed and both showed, grossly and microscopically, changes suggestive of general paresis. The immediate cause of death was in one case broncho-pneumonia and in the other, who had right-sided convulsions at intervals, there was found a large cyst underlying the left motor cortex. This last case had previously shown a well-marked improvement and at the time of death was on parole. Two cases have shown no improvement.

Both mental and physical improvement has generally been observed after the second or third operation, and has followed so closely upon the treatment as to practically preclude the idea of coincidence. The maximum amount of improvement has occurred as a rule after six or seven treatments.

That the operation is not dangerous is shown by the fact that 102 have been performed without untoward results in any case. Thirty minutes suffices for the whole procedure and the anesthetic has been well borne in all our cases.

The cases treated were not selected but were taken at random from the admissions of the past two years. Every attempt has been made to exclude psychoses other than general paresis and in every case the clinical diagnoses have been supported by the laboratory findings.

Where pupillary disturbances existed no marked change has been noted after treatment. Reflexes, when previously exaggerated, show a tendency to become less so. Coordination and speech have been improved in all.

In the blood the Wassermann reaction has been rendered negative in six; reduced in intensity in four; unchanged in three, and not taken in one. In the spinal fluid the Wassermann has been rendered negative in two; reduced in six; not retaken in two; unchanged in the rest. The cell count has been reduced to below 10 per cm. in 12; not retaken in two. The Ross-Jones reaction for

globulin has been made negative in one; unchanged in the remainder.

What the final outcome of these cases will be we cannot, of course, state. Our best results have occurred in those in which the manifestation of the disease process had been noticed within a comparatively short time, and in which the actual destruction of brain tissue might reasonably be supposed to be slight. We believe that if cases of general paresis could be diagnosed early and thoroughly treated much might be done to control the future progress of the condition.

#### DISCUSSION.

DR. C. B. BURR.—In regard to this particular treatment, there has been in the main a reasonable attitude on the part of investigators. One difficulty that I have had to contend with has been the unwarranted hopefulness of relatives concerning the probable results. I recall one case in particular in which, because of apparent improvement, there was undue optimism among them. However, this patient has since gone the way of paretics generally. Results have not been in any case which has come under my personal knowledge, such as would justify even a moderately favorable prognosis.

DR. WALTER B. SWIFT.—It is not quite clear whether the speaker presents any etiological relationship between the condition and the injection. There has been a case reported from Germany, in which this condition was marked.

DR. C. B. BURR.—I would like to ask Dr. Evans to what he attributes the œdema of lungs in one case which he reported, and whether that was a case where there was trephining?

DR. THORNE.—In answer to the inquiry in regard to one of the cases reported by us, I would say that I believe the condition mentioned was due to the preparation of the salvarsan; we have demonstrated that, but not in the case of trephining.

DR. GUY PAYNE.—I think it is very unfortunate that Drs. Evans and Thorne included in their paper one case of paresis treated by the intracranial method and drew the conclusion that the method was useless because the patient did not show any improvement. In the first place the case treated was an advanced case of general paresis, and I understand the patient received but two treatments.

As to the circulation of the cerebrospinal fluid, I think very little is known. For theoretical arguments in favor of the intracranial method of treatment, Mott, Campbell and Ballance, of London, have contributed very

good arguments. As to the clinical value of the intracranial method, Levaditi reports improvement in 10 cases treated by this method, and Dr. Wardner's report I think is far beyond the improvement that you get in untreated cases of general paresis. Dr. Cotton, of Trenton, has seen our cases at the hospital, and in the last issue of the *AMERICAN JOURNAL OF INSANITY* makes comment on the intracranial treatment, of which he says it is possible that by reason of the serum reaching the cerebral cortex in a more concentrated form that the intracranial method is made more effective. Dr. Smith has also seen some of the cases at our hospital.

DR. WARDNER.—We have treated 14 cases with very good results in five, fair results in three, and no deterioration in the others, while two have died of perhaps other conditions than paresis. I may say that one patient had left-sided convulsions before coming to the hospital, thus, I think, precluding the idea of any connection between the treatment and the condition after treatment.

I would like to lay stress on the point that clinically the remissions in cases of paresis occurred in about 7 to 10 per cent at our hospital. They have been less in the last few years. The improvement in Levaditi's cases has been very marked.





## A SURVEY OF DEFECTIVE DELINQUENTS UNDER THE CARE OF THE MASSACHUSETTS STATE BOARD OF INSANITY.\*

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For many years the relation between mental disease, especially mental defect, and crime has been recognized, and attempts to make use of our knowledge of this relation have been many, but for the most part unsuccessful. In Massachusetts Dr. Walter E. Fernald has long urged action in this matter, and for a concise statement of the problem we can do no better than to quote him:

To a trained observer the class of boys and girls in truant schools and in industrial and reform schools includes a rather large proportion of defectives where the intellectual defect is relatively slight and is overshadowed by the moral deficiency. The history of a case of this sort during infancy and early childhood, from a medical and psychological standpoint, is that of an abnormal child. While they generally present definite physical evidences of degeneracy, they are physically superior to the ordinary imbecile. Their school work is not equal to that of normal boys of the same age, but they are often abnormally bright in certain directions. They may be idle, thievish, cruel to animals or smaller children, wantonly and senselessly destructive and lawless generally. They are often precocious sexually and after puberty almost always show marked sexual delinquency or perversion. They are often wonderfully shrewd and crafty in carrying out their plans for mischief. They instinctively seek low company and quickly learn everything that is bad. They have little or no fear of possible consequences in the way of punishment. They acquire a certain spurious keenness and brightness and possess a fund of general information which is very deceiving on first acquaintance. They are apt to be accomplished liars. The great army of police court chronic criminals, vagrants and low prostitutes is largely recruited from this class of "moral imbeciles." These children are not simply bad and incorrigible, but they are irresponsible by

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\* Being State Board of Insanity Contribution No. 44 (1915.10). The previous State Board of Insanity Contribution (1915.9) was by A. Warren Stearns, entitled "Note on Recent Extension of Out-Patient Work in Massachusetts Hospitals for the Insane," published in the *Boston Medical and Surgical Journal*, Vol. CLXXII, No. 15, pp. 553-555 (April 15, 1915).

reason of the underlying mental defect. The mental defect and the moral lack are alike the visible effects of incurable affection of the cerebral cortex. No method of training or discipline can fit them to become safe or desirable members of society. They cannot be "placed out" without great moral risk to innocent people. These cases should be recognized at an early age, before they have acquired facility in actual crime, and permanently taken out of the community to be trained to habits of industry and as far as possible contribute to their own support under direction and supervision. They are not influenced by the simple system of rewards and deprivations which easily serves to control the conduct of the feeble-minded. They do not class well with the rather simple types of ordinary imbecility. When the actual number of this dangerously potential class of moral imbeciles is fully realized, they will be given lifelong care and supervision in special institutions combining the educational and developmental methods of a school for the feeble-minded and the industry and security of a modern penal institution. Such provision would only be a rational extension of the principle of the indeterminate sentence, and, if safeguarded by careful and repeated expert examination and observation, could do no injustice and would greatly diminish crime in the immediate future.

Also:

The patients described vary greatly in intelligence and in the amount of definite knowledge which they have acquired, but they greatly resemble each other in their childish tastes, excessive vanity, unreliability, aggressive boastful egotism, selfishness, moral insensibility, fondness for malicious mischief and trouble-making, indolence, willingness to run great risks for the sake of some small gain, untruthfulness, lack of shame and remorse, lack of sympathy, etc.

The cases described fairly represent the criminal imbecile type. I have no doubt as to the actual imbecility and the resulting moral irresponsibility of every one of these cases. As a group, the female cases especially well illustrate the so-called "high-grade imbecile." In fact, the physical and psychical stigmata exhibited by this group of imbeciles, selected because of their criminal tendencies and acts, are merely the usual signs and symptoms found in the ordinary case of imbecility, modified only in *degree* and not in *kind*.

This class of borderline cases with criminal tendencies now constitutes a troublesome and puzzling factor in our institutions for the feeble-minded. They are often malicious, deceitful, and inciters of mischief and insubordination. They have a wonderful power of suggestion over their simple-minded fellow-patients. They are generally committed to the institution against the wishes of their parents. The efforts of their friends to obtain their release are constant and perplexing. If a case of this description is taken before the Supreme Court on a writ of habeas corpus, it is more than likely that the patient will be released. Indeed, it is not difficult to find reputable medical men who would testify that the case "is by no means a fool," and that he ought not to be deprived of his liberty. It is evident

that clinical types and shadings of mental deficiency have become familiar to the alienist which have not yet been so definitely formulated and classified as to be readily recognized by the profession generally. It is equally true that the legal definitions and precedents pertaining to ordinary cases of imbecility are inadequate when applied to these high-grade imbeciles. We have, therefore, to face the anomalous fact that it is easy to have a class of patients committed to our institutions who are promptly discharged by the higher courts because these lesser types of deficiency have neither been adequately formulated medically nor recognized legally.<sup>2</sup>

More recently the term "defective delinquent" has been applied to this group, and we find in 1911, in the report of the commission to investigate the question of the increase of criminals, mental defectives, epileptics and degenerates, under the heading "Defective Delinquents," the following:

There is urgent need of special legal recognition of the class of defective delinquents, and of suitable provision for their proper commitment and permanent detention. The law should recognize that such a class exists by making a distinctive legal definition. There should be a definite form of procedure for the commitment of the defective delinquent similar to that used for the commitment of the insane. This procedure should be equally applicable to cases in the courts or in the community, to youthful and adult criminal defectives, and to cases which develop in the institutions for the feeble-minded.

They should be committed to permanent care and custody, under special institutional conditions combining the educational and developmental methods of a school for the feeble-minded with the industry and security of a modern penal institution. Under proper conditions, perhaps in a farm colony, the directed labor of these persons would materially reduce the cost of their support. Their immoral and criminal depredations would be prevented, the cost of repeated arrests, trials and commitments would be avoided, and they would not be able to bring helpless children into the world. Provision should be made for the safeguarding of the rights of the individual by periodical expert examination and observation, and by the possibility of ultimate release under parole.

This latter report was instrumental in the passage of a law in 1911 designed to provide for the care of this class. (Law appended.) This law has not been utilized, unfortunately, and still awaits the measures necessary to put it in action.

Public sentiment has been aroused, however, and the frequent attempts to get such patients into the schools for the feeble-minded and hospitals for the insane, and the many complaints from superintendents when they were by chance admitted, led the Massachu-



setts Board of Insanity to make a survey of all such patients in the hospitals under their control, to see, first, how many such patients were under their control, and, secondly, to see what measures could be undertaken to assist in the solution of this problem.

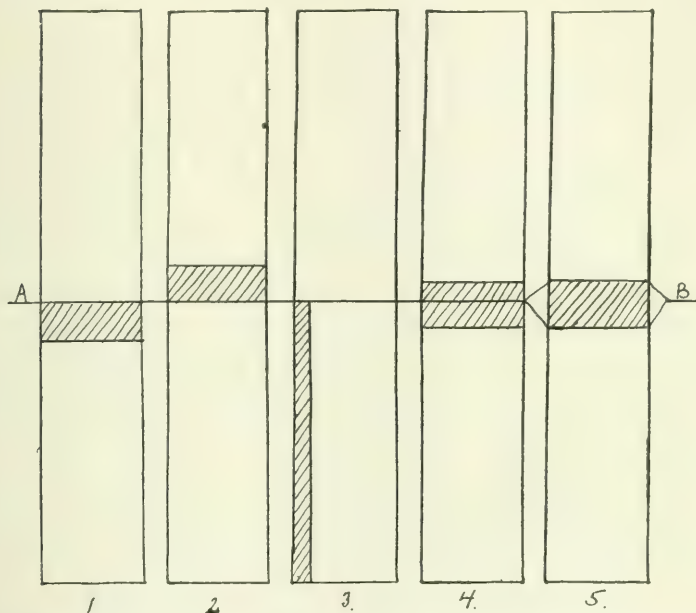
The term was found to be in quite general use, though rarely as an official diagnosis. "Moral imbecile," "psychopathic inferiority," "constitutional inferiority," as well as "imbecile" and "feeble-minded," were used. The following table shows the number of feeble-minded without a definite psychosis in the hospitals for the insane, and also those of this number who come within the defective delinquent group.

Hospital	Feeble-minded			Defective Delinquents			Remarks
	M.	F.	T.	M.	F.	T.	
Worcester .....	16	20	36	..	4	4	
Taunton .....	33	16	49	..	8	8	
Northampton .....	53	35	88	3	5	8	
Danvers .....	26	25	51	1	5	6	
Westborough .....	18	24	42	2	6	8	
Boston .....	22	16	38	..	..	..	
Grafton .....	5	10	15	..	6	6	
Medfield .....	18	19	37	..	8	8	
Gardner Colony ....	27	24	51	1	8	9	
Tewksbury Infirmary	16	40	56	..	6	6	
Bridgewater .....	50	..	50	13	..	13	Males only
Monson .....	..	..	..	..	..	..	Epileptics only
Foxborough .....	3	4	7	2	4	6	
	287	233	520	22	60	82	Totals in hospitals for insane.
Mass. School for the Feeble-minded ..				10	19	29	Entire population feeble-minded.
Wrentham State School .....				20	27	47	
Grand Totals .....				52	106	158	

Some difficulty was experienced in deciding, in any given case, whether to apply the term "defective delinquent," though the group itself stands out quite clearly. The following chart illus-

trates the different ways in which the term is used, taking the intellectual level alone as a standard.

Fig. 1 represents the most common conception. *A—B* represents the dividing line between an intelligence which is called normal and one called feeble-minded. The shaded portion represents



CHARTS SHOWING POSITION OF DEFECTIVE DELINQUENTS IN INTELLECTUAL SCALE. *A—B* DIVIDES NORMAL AND FEEBLE-MINDED. SHADED PORTIONS REPRESENT DIFFERENT CONCEPTS OF THE DEFECTIVE DELINQUENT.

a small group of morons who have emotional and volitional instability and criminal tendencies.

Next in frequency is the concept represented by Fig. 2. *A—B* has the same significance as in Fig. 1. Then the shaded portion represents a group just above the feeble-minded grade, but akin to them, and showing marked criminal traits. This corresponds with the definition given by Dr. Guy G. Fernald: "To explicitly define the class we may regard as within the group of defective

delinquents one whose mentality is so imperfectly developed that he is unable to support himself honestly, and whose acts repeatedly conflict with established social and legal requirements. Above the maximum limit of this group are those who are mentally competent for self-support and below its minimum limit are morons, imbeciles of institution grade and idiots. In other words, the defective delinquent is one who is smart enough to get into trouble but is not smart enough to keep out of it."<sup>3</sup>

Fig. 3 represents a less frequent use. Here it is applied to any grade of feeble-minded patient who shows criminal tendencies.

As has been said before, though the group itself seems fairly clear-cut, it is often quite difficult to decide in a given case; and the writer feels that, regardless of theoretical considerations, usage will include a group overlapping the lower end of normal and the upper end of the feeble-minded, but having a characteristic anti-social attitude (Fig. 4). Here the old division of the feeble-minded into restless and stupid types applies, for some are anti-social because of restless activity, others because of indifferent following of what appears to be the easy way. Some consider the group to be suspended midway between normal and feeble-minded, as in Fig. 5.

A few figures will perhaps describe the group to best advantage. Since, generally speaking, being a moron has been a criterion upon which to base the diagnosis, practically all fall within this group. Of the 158 defective delinquents, 106 were females and 52 were males. This difference is probably explained by the large number of males in prisons. Of the 22 male defective delinquents in the hospitals, 13 are in the Hospital for the Criminal Insane at Bridgewater, so that as far as hospitals for the insane are concerned, females are the chief problem, there being 60 of these.

The typical life history of these individuals is one succession of contact with penal and social agencies. Of the 158 cases, 43 or 27.2 per cent. have previously been in some penal institution; 79 or 50 per cent. have been in some hospital for the insane or feeble-minded (insane, 57; feeble-minded, 22); 23 or 14.5 per cent. have been in charge of some private charitable organization; and 12 or 7.6 per cent. have been wards of the State Board of Charity.

As for their delinquencies, it is of course impossible to record every anti-social act, yet the following are given as most prominent in the records, in order of frequency :

Sex offenders .....	84
Uncontrollable temper .....	57
Stealing .....	53
Illegitimate child .....	29
Runaway .....	15
Venereal disease .....	13
Alcoholic .....	6
Murder .....	6
Setting fire .....	4
Assault and battery .....	3
Morphine .....	1
Miscellaneous, such as unruly, dishonest, truancy, stubborn, profane, noisy, troublesome, quarrelsome, rebellious, tramp, violent, breaking windows, etc. ....	25

It will be seen that a good many of these descriptive terms apply to reaction to hospital environment, and that many are "criminals who have committed no crime."<sup>2</sup>

Obviously these individuals are a menace to the community and require more or less permanent institutional care. They do not get along well in the prisons or in the schools for the feeble-minded, and at present are more comfortable in the hospitals for the insane. This is probably due to the fact that they can be widely separated, also that they feel their superiority there, make friends with nurses, have little compulsory work and no discipline. It seems that the farther they get from prison methods and discipline, the more comfortable is their condition. This has made the ordinary prison care notably unsuccessful with this class of cases.

On the other hand, they easily escape from insane hospitals, they do not learn a trade or other work which makes them useful, and they are out of place with psychotic patients. In the schools for the feeble-minded they are a disturbing factor. They cannot be held without escape, they are too old for educative school measures, and are a source of physical and moral danger to ordinary feeble-minded patients.

All of these facts speak for a segregation of this type, and the question arises as to who should take up the burden, at present inadequately cared for by prisons, schools for the feeble-minded and



insane hospitals. There is no doubt that the prisons should provide for such cases, and the appended law seems adequate, could it but be put in operation. The abundant reasons for the passage of this law justify active steps on the part of prisons to care for those cases whose criminal life overshadows their mental defect.

Next, though they are undoubtedly out of place in the ordinary school for feeble-minded, a large number come legitimately within the duties of those caring for the feeble-minded. Many, especially females, are never arrested, their defect is recognized and their troublesome behavior is merely a manifestation of such defect. They differ from the children in the feeble-minded schools only in age. Indeed, many are considered proper subjects of such schools until adult life, with its resulting sexual activity, is reached. For this reason more provision should be made for the adult feeble-minded of both sexes, and especially for females of the child-bearing age.

The hospitals for the insane will always have many feeble-minded complicated by a superimposed psychosis. There are many feeble-minded, however, who have slight episodes, or outbreaks transitory in character, which result in their commitment to hospitals for the insane. These, if there were more provision for adult feeble-minded, would better be classed as feeble-minded and kept in institutions for such, and no uncomplicated feeble-minded should be in hospitals for the insane, whether delinquent and troublesome, or not.

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#### APPENDIX.

##### ACTS OF 1911, CHAP. 595.

AN ACT TO PROVIDE FOR THE MAINTENANCE, AT THE REFORMATORY FOR WOMEN, THE MASSACHUSETTS REFORMATORY AND THE STATE FARM, OF DEPARTMENTS FOR DEFECTIVE DELINQUENTS.

*Be it enacted, etc., as follows:*

SECTION I. If in any case where a court might by way of final disposition commit an offender to the state prison, the reformatory for women, or any jail or house of correction, or to the Massachusetts reformatory,

the state farm, or to the industrial school for boys, the industrial school for girls, the Lyman school, any truant school, or the custody of the state board of charity, for an offence not punishable by death or imprisonment for life, it shall appear that the offender has committed the offence with which he is charged, is mentally defective, and is not a proper subject for the schools for the feeble-minded, or for commitment as an insane person, the court may commit such offender to a department for defective delinquents, hereinafter established, according to the age and sex of the defendant as hereinafter provided.

SEC. 2. If an offender while under commitment to any of the institutions or to the board named in section one of this act persistently violates the regulations of the institution or board in whose custody the offender is, or conducts himself or herself so indecently or immorally, or otherwise so grossly misbehaves as to render himself or herself an unfit subject for retention in said institution or by said board, and it appears that such offender is mentally defective and is not a proper subject for the schools for the feeble-minded, the physician in attendance at such institution or a physician employed by said board shall make a report thereof to the officer in charge of said institution or to the superintendent of minor wards of said board, who shall transmit the same to one of the judges mentioned in section twenty-nine of chapter five hundred and four of the acts of the year nineteen hundred and nine. The judge shall make inquiry into the facts and, if satisfied that the offender is mentally defective and is not a proper subject for the schools for the feeble-minded, shall order the removal of the offender to a department for defective delinquents, hereinafter established, according to the age and sex of the defendant as hereinafter provided.

SEC. 3. No person shall be committed to a department for defective delinquents under the two preceding sections unless there has been filed with the judge a certificate of the mental defectiveness of such person by two physicians qualified as provided in section thirty-two of chapter five hundred and four of the acts of the year nineteen hundred and nine and acts in amendment thereof or in addition thereto. The fees of the certifying physicians shall be of the amount and paid in the manner provided for like service in said chapter five hundred and four, and acts in amendment thereof and in addition thereto.

SEC. 4. If an inmate of a school for the feeble-minded persistently violates the regulations of the school, or conducts himself or herself so indecently or immorally, or so grossly misbehaves as to render himself or herself an unfit subject for retention therein, the officer in charge of the school shall make a report thereof to one of the judges mentioned in section twenty-nine of said chapter five hundred and four. The judge shall make inquiry into the facts and, if satisfied that such inmate is not a fit subject for retention in the said school, shall order the removal of the inmate to a department for defective delinquents, hereinafter established, according to the age and sex of the inmate as hereinafter provided.

SEC. 5. At the reformatory for women, the Massachusetts reformatory, and the state farm there shall be maintained departments to be termed departments for defective delinquents, for the custody of persons committed thereto under this act. All male persons under twenty-one years of age committed under the provisions of this act shall be committed to the department at the Massachusetts reformatory. Men twenty-one years of age, or over, committed under this act shall be committed to the department at the state farm. All women and girls committed under this act shall be committed to the department at the reformatory for women. All persons committed to the departments for defective delinquents hereby established at the reformatory for women and the Massachusetts reformatory shall be and remain in the custody of the board of prison commissioners until discharged as hereinafter provided, and all persons committed to the department for defective delinquents hereby established at the state farm shall be and remain in the custody of the trustees of the state farm until discharged as hereinafter provided.

SEC. 6. The prison commissioners and the trustees of the state farm may, respectively, parole inmates of the departments for defective delinquents, herein provided for, at their respective institutions, on such conditions as they deem best, and they may at any time recall to the institution any inmate paroled.

SEC. 7. Any person may apply at any time to the justice of the district, police or municipal court in whose jurisdiction a department for defective delinquents is located for the discharge of any inmate of said department. A hearing shall thereupon be held by said justice, of which notice shall be given to the applicant and to the person in charge of the institution where the inmate is confined. If after the hearing the justice shall find that it is probable that the inmate can be suffered at large without serious injury to himself or herself, or damage or injury or annoyance to others, the authorities having custody of said inmate shall parole the inmate. Further action on the application for the inmate's discharge shall be suspended for one year from the date of his or her parole. If at the end of said year the justice of the court where the application was filed shall find that said inmate can be suffered to be permanently at large without serious injury to himself or herself, or damage or injury or annoyance to others, the authorities having custody of said inmate shall discharge the inmate. If, at any time prior to the expiration of said year of parole, the justice of the court where the application was filed shall be satisfied that the best interest of said inmate, or of the public, require the recall of the inmate from parole, he may authorize the authorities having custody of the inmate to recall the inmate from parole. If an application is denied, a new application shall not be made within one year after the date of the order denying the previous application. If a person discharged under the provisions of this section is found by any court to have committed, after his discharge, any offence against the laws of the commonwealth, said court may commit such person to a department for defective delinquents without the certificate of any physician.

SEC. 8. Any special justice, when holding court at the request of the justice, shall have the powers and perform the duties of the justice under this act. In case of a vacancy in the office of justice and in the case of the illness, absence or other disability of the justice, the special justice who holds the senior commission shall, if no request has been made as aforesaid, have the powers and perform the duties of the justice under this act.

SEC. 9. The record of all proceedings under this act, and all papers in connection therewith, shall be kept as provided in section forty-one of chapter five hundred and four of the acts of the year nineteen hundred and nine, and the same docket shall be used for the proceedings under this act which is used under said section forty-one.

SEC. 10. All commitments under this act shall be made under an order signed by the judge making the order. Orders for commitment may be served by any person qualified to serve any processes issued from the court in which the justice making the commitment sits or, in case of transfers, by any officer or attendant of the institution from which the transfer is being made. The officer or other person serving such order shall make return of service on an attested copy of the order.

SEC. 11. All the expenses attending all proceedings under this act shall be allowed, certified, and paid in the manner provided in section forty-nine of chapter five hundred and four of the acts of the year nineteen hundred and nine and acts in amendment thereof and in addition thereof.

SEC. 12. This act shall take effect when the departments named in section five are ready for occupancy. The prison commissioners and the trustees of the state farm shall notify the governor when said departments are in a suitable condition to receive inmates; and the governor may then issue his proclamation establishing such departments as places for the custody of defective delinquents. *Approved June 27, 1911.*

#### DISCUSSION.

DR. HOUSTON.—I think that if the psychiatrists, social workers and others interested, could procure the operation of such a law as Dr. Stearns has told us about we should find the number of defective delinquents to be much larger than is now realized. I am inclined to think with Dr. Stearns that they should be classed among the higher grades, morons. In the cases that have been referred to me recently the Binet-Simon and Yerkes tests have not demonstrated mental deficiency so far as learning and ability to learn goes. The last boy examined by me recently was about 15 years old. By these tests he scored 90 points; he could read well and showed that he was not intellectually defective; it was his delinquency that showed him to be defective. In such cases it is delinquency itself that must be considered evidence of mental deficiency, and I would give as one of the characteristics of delinquency the habitual tendency to commit small crimes or misdemeanors undeterred by fears of punishment and uninfluenced by the hope of reward. Experience shows that individuals of this



type, who have been in confinement for varying lengths of time and have done well under discipline of institution life, do not profit by their experience. If they are released from the institution they do, over and over again, the same thing that led to their first commitment. This I believe is the distinguishing mark of their deficiency.

I think they ought to be segregated and I hope to see such a law put into effect.

DR. HENRY M. HURD.—I am delighted to have heard this paper and the discussion, because I remember and recognize these persons as the so-called cases of moral insanity which formerly used to vex us, as well as our predecessors in the membership of this Association. There were those who believed that all insanity was physical, and others who believed that insanity had inherent moral causes. In preparing the history of the Association I have studied with much amusement, the numerous efforts made to harmonize the two points of view.

I am sorry the reader of the paper was not born 40 years ago; he would have saved the Association much worry and contention.

DR. STEARNS.—I might say that my paper and my work differ somewhat. To illustrate, at a neurological meeting in Boston, Dr. B., of Lancaster, stated that he had found out what a God-saker was, and when pressed for the definition, stated that it is a person who goes to all meetings and, upon hearing papers read, gets up and says, "For God's sake, let's do something!" That is about the situation as we have it. As far as the matter of creating special classes is concerned, I agree that this is a mistake, unless a person's mental condition is such that we are going to discriminate against him in punishment. There should be definite rules to arrange commitment as insane or feeble-minded. As far as having special institutions, the prison commission I believe has that in mind. I believe that as the world goes on and advances, the feeble-minded institutions should take from the prisons and add to their population. I am afraid that putting these individuals under prison authority will subtract from the feeble-minded schools and add to the prison population, which I think would be unfortunate.

## THE PSYCHOSES OF THE HIGH IMBECILE.

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Generalizing, it is well to remember that the high imbecile from the cradle onwards develops slowly, that he is behind the normal child in learning to walk as well as to talk, that in attention as well as imitation he is backward, that when childhood begins and school life opens he shows up as a dullard or one-sided individual. In his habits he is negligent and untidy, and is often the sport of better endowed companions, an item that has bearing on the whole of his future life. In his class life he is in constant conflict with his teachers, to whom he is a despair.

The final scholastic attainments are, as a rule, a superficial knowledge of reading and writing. Spoken language, on the other hand, is often voluble, though it will be found, on examination, that the vocabulary is a limited one, and that scanty ideas are submerged in a torrent of oftentimes meaningless words. Few are at all proficient in arithmetic, even those who have had a fair opportunity of attaining a good education. With the automatic indrilling of the multiplication table their ability ends; subtraction, division and compound multiplication remaining an unfathomable riddle. Many, fluent in language, cannot even tell the hour by the clock, also in abstract deduction of a simple problem they show no reasoning ability.

When the age of adolescence is reached the rise of the sexual instincts, as well as altered conditions, that is to say, the increased personal liberty and freedom from restraints imposed by parents and guardians, seem to aggravate all their propensities to evil; excesses of all kinds are indulged in, and in especial Venus and Bacchus.

At this period lues is often acquired, and plays an important part in their subsequent mental deterioration, but vinous spirit

has even a more prominent rôle in the majority in this respect. Few are there among the high imbeciles that do not show its after-effects when psychoses develop, as is evidenced by the hallucinations as well as delusions of persecutory cast.

In the list of delinquencies it may be mentioned that thefts are frequent to obtain the necessities for future pleasures, rapes are usual when money or means are lacking to attract the weaker sex, vagabondage and beggary are common, so that children of respectable parentage are found harboring with thieves and prostitutes to the scandal of the community in which they live, as well as to their own detriment.

Not infrequently, after a course *in vino et Baccho*, the defective inherited protoplasm comes to the succor of the family pride and respect. A few months of excesses, and the hereditary weakling becomes passive, inert, unable to take care of himself in any way, in other words becomes demented, and seeks the sheltering walls of an institution to be cared for to the end of his days.

There seems to be some natural law of premature senescence descending upon members of the imbecile class about the age of adolescence, that renders a future development of viciousness as well as licentiousness impossible, some conflict between the correlation of the internal secretions may be supposed. In any event, the mental development comes to a standstill, with eventual retrocession, it may be after the lapse of only a few months. It should be remembered in this connection, as having a direct bearing upon the subject at issue, that the age of puberty and adolescence is the most trying period in the evolution of the higher cerebral association fibers, rapid growth of the body occurring with advancing maturity of the sexual system, and the cytoplasm for successful development is both deficient and defective. This induces a rapid decline of the neural vitality, and terminates in a mental reduction.

Alcoholism, syphilis, the excessive use of tobacco, late hours, and overdrain upon the sexual organs, all play a decided and important part in the immediate mental downfall of the defectives. Few examples of hallucinations are found without some antecedent history of alcoholic misuse.

The stigmata of degeneration in the high imbecile class are much less frequent and pronounced than in the lower types, also

the physiognomy is less explicit in its tale of intellectual barrenness; in fact, many of the so-called moral, emotional or impulsive cases are sufficiently high in the intellectual scale not to portray to the untrained mind their actual degree of weakmindedness, and accordingly pass for normal individuals among the masses. It has been said that "clothes make the man," and certainly a well-groomed individual offers less to the eye that is suggestive of mental defect than those that are unkempt and untidy. But, by examination with the Binet method, or with the simpler arithmetical tests, together with questions as to judgment and insight, a fair knowledge of the degree of intellectual endowment may be ascertained within a few minutes, and the results are often surprising, showing as they do incompetence that was entirely unsuspected from the surface.

The psychoses of the moron class are extremely varied, complicated, interesting, and have not been sufficiently studied, mainly because the majority of mental workers have not been taught to recognize the imbecile in his highest development, the pedestal on which he stands nearest to normal man, and while they recognize that certain cases running the course of an atypical catatonia, hebephrenia, or early dementia are of subnormal mental grade, place but little stress upon this fact.

Grading carefully upwards from the lower types of imbecility to the moron group, the last with but few physical and still fewer gross psychical defects, we find that a high percentage of the permanent inhabitants of institutions for the insane (excluding seniles and paretics) have a defect in their mental gearing of the most varied degree and characteristics, with which is coupled a psychosis.

Naturally, the insanities of the high imbecile fall among recognized types of adolescent psychoses, but at the same time, and in endless variety, they depart from the classical forms of these maladies in symptomatology and duration.

Tabulated, we find cases in the clinic resembling:

I. The dementia præcox group:

Catatonia.

Hebephrenia.

Paranoid forms.



2. The alternating insanities:

Periodic and circular forms, with pathological exaltation and depression.

Stuporous states, either simple or alternating with motor excitement.

3. The dementia group:

Dementias progressive in character, without depression or exaltation of any duration.

4. Cases with especial pathological disturbance of hearing, sight and gustation:

Acute and chronic hallucinosis.

5. Cases that are especially characterized by the presence of false ideas:

Acute and chronic delusional states.

6. Cases whose especial feature is the occurrence of impulses or impellant acts of a pathological nature:

Obsessions and pathological impulses.

But the course of the first two of the above divisions does not follow closely the cardinal types. Most notable in all of them is the tendency toward a quick dementia, which is final and often complete, but even to this rule there are certain exceptions, especially among those showing a simple motor excitement free from delusions and hallucinations. Another difference is the short duration of the malady in contrast to the longer endurance of the typical cases of catatonic or periodic insanity, the psychosis ending in a few days to weeks in a quick return to the former mental state, or an equally rapid mental reduction and passivity. Few indeed are the uncomplicated cases that have not indulged in spirits or exhausted their vitality in prolonged excesses, homo- or hetero-sexual.

Furthermore, and as a cardinal point, the onset of the psychosis is more sudden and without the preliminaries of the catatonic or manic depressive; the attack is briefer, the return to former mentality more complete within a shorter space of time. Infrequent are hallucinations in the absence of alcoholic abuse.

Returning to the above classification and simplifying it to a certain extent, we find:

(1) States of pathological exaltation, with the features of short course, and rapid termination in a dementia or return to the former

mental state. These forms of excitement are common, especially with adolescent youths, are uncomplicated by alternating depression or hypochondriacal fancies; in fact, delusions themselves are infrequent or of the simplest character. The outbreak of the malady is characterized by a sudden onset, violent as well as extravagant tendencies, logorrhea with incoherence in the assemblage of ideas, also by a varying degree of intellectual confusion during the period of excitement, this passing into actual stupor, out of which the patient returns to his natural state. The motor symptoms in this class are on the whole more pronounced than the mental ones. The duration of the entire seizure is short, a few days, infrequently a few weeks, with restitution or dementia according to the strength of the inherited protoplasm. Attacks in those fairly endowed are liable to be repeated from time to time. Occasionally a patient is seen that has had only one, though afterwards there may be times of irritability not amounting to an actual psychosis.

(2) States of pathological exaltation in individuals of a slightly higher mental grade than the preceding class. With thought confusion are now mingled delusions of pronounced but varied character. Dependent upon the abuse or non-abuse of spirits, their content varies from simple delusions of personality and surroundings, power, wealth, above all, egotistical tendencies, to varied ones of persecution, mainly attributed to persons with whom they have been in contact in their own household or at the workshops. These false ideas are systematized to the extent that they do not vary greatly from day to day, and may last for several weeks. Hallucinations with even moderate alcoholics (or cocaine habits) are usual. Those of hearing are of a persecutory cast, unfriendly voices telling them that they are foul with syphilis, are no longer men, that their wives are unfaithful. Those of sight are also frequent with this class; they see figures or pictures moving in the trees. God or the devil appears and commands them to do certain acts. Hallucinations of being covered with creeping vermin that burrow under their flesh are also common. Gustatory deceptions are much less frequent.

With the major part of this class one attack brings them into the domain of the asylum, and though they may recover to the extent of becoming quiet and manageable, the finer part of their

faculties is blunted, and they are no longer capable of returning to their avocations, or, unassisted, of attaining to any steady employment, though they may do fairly well under the guidance of another stronger mind. Eventually they slowly descend in the mental scale, or, after the recurrence of repeated attacks, become completely fatuous.

(3) Cases that show a variation from the second type in so far that after a period of moderate pathological hyperactivity, with delusions and frequently hallucinations, deep confusion begins, ending in stupor with catatonic rigidity, negativism, as well as resistance to passive extension of the extremities. The circulation is lowered, the heart's action feeble, the extremities cyanotic, the vitality falls to a low ebb. Death occasionally occurs in this state of stupor, without any return to consciousness. In the depths of the lethargy the quivering eyelids are the only sign of life; the pupils are widely dilated, the face is pallid, while the respiration is slow and uncertain.

In the less severe cases partial restitution takes place within a period of two to four weeks, the victim no longer requiring to be tube-fed and is more energetic, but the delusions continue unabated, slowly to fade in the darkness of a dementia that is final.

(4) Paranoid tendencies are frequent with the high imbecile. Alcoholism and masturbation are the foundation stones, in common with other agencies of a depressant nature. In the brain of the three-quarter wit, probably after a series of misfortunes, mainly owing to their incompetence or inattention to duties, arises a time when they evolve the idea that the hand of mankind is against them, that they are kept down by favoritism toward others, and kept out of their proper sphere and deserts.

The essential egotism of the moron, deep lying and always ready to take offence when their errors of omission or commission are corrected, renders them unduly sensitive to the "blows of unrequited fortune"; they shrink more and more within their inner selves; introspection with alcoholic excesses soon lowers the mental vitality, false ideas that they are the object of persecution or sport by their fellow workmen arise; soon aural hallucinations are added to the delusions that they are the subjects of unwarranted hostility from their fellows; unfriendly voices assail them, coming from whence they do not know, as they reach them on

the street or in the quietude of their own abodes. Soon attacks on employer or fellow workmen supervene, the police interfere, and the gates of the asylum open.

After entering an institution the mental downfall is usually rapid. At first voluble with their complaints to the medical men or attendants of the institution, there is soon withdrawal of association with the other inmates, intensification of the persecutory ideas, which is followed within a year by a deeper and yet deeper dementia, though this class rarely become so entirely fatuous as those of the first divisions.

(5) Cases resembling the alternating (manic-depressive) insanities. From the narrow egotism of the moron class it may readily be imagined that examples of depression are far less frequent than those of excitement with stupor, the true periodic cases standing on a higher plane of mental altitude. Like the states of excitement of classes 1 and 2, they show the same sudden beginning with few antecedent preliminaries, short course and ordinarily rapid termination. With the majority that fall under this category, the stage of excitement is marked by a deeper clouding and confusion than is usual with the manic depressives: ideation is shallower and delusional ideas more pronounced. Motor agitation is sometimes well marked, at others trivial. The periods of depression show anergy rather than delusional depression, while the mental level of the entire psychosis impresses one as being more grave as well as more irremediable than in pure alternating examples.

(6) Stuporous states—not the occasional stuporous conditions of the periodic or of the catatonic, but of a character quite apart from these, and manifesting but little of their symptomatology except for the more prominent element. In the moron, instances of simple stupor, except with women at the time of the menstrual periods, are rare. With little disturbance of the vital functions, and still less of delusional or hallucinatory implication, these individuals for a short time become irritable, restless—as they express it, “nervous”; then suddenly pass into a deep, passive sleep, out of which nothing in the way of varied stimuli will arouse them. They require to be tube-fed and in every way looked after. After the lapse of ten days to several weeks, they suddenly, often in the early hours of the morning, come out of the realms of night into



those of day. During this state of total anergy there are no muscular movements, no negativism, nothing approaching a cataleptic condition, only passivity.

The pupils are widely dilated, the pulse slowed, the respiration tranquil but shallow. The temperature is subnormal. The tendency is to recover after a time, but contrary to the preceding varieties, the malady is not customarily followed by a mental decline, except when the attacks are repeated over and over again. Questions, after recovery, as to their recollection of the phase of stupor, ordinarily elicit little information. Some refer to it as a prolonged uncertain dream, often of painful nature; others have no distinct remembrance at all.

(7) Progressive dementia without active motor or psychic symptoms. Not a great many cases coming under this division have fallen within my notice. The majority were not high in the mental scale, and some had the brand-marks of an inherited syphilis. Spinal fluid tests were frequently positive.

In the earlier stages there comes a time of ill-defined nervous agitation without definite delusions or hallucinations, after which the subjects slowly dement without further active symptoms. Not a few examples show the evidences of a chronic arteritis, sometimes luetic, sometimes of other types, and as definite histories are frequently lacking, it may be presumed that some have suffered from typhoid or other infectious fevers, that, together with the after-effects of the accompanying irritant toxin, has induced a state of chronic nutritional defect leading up to the psychosis. The general bad effects of licentiousness in this class has already been considered.

With a number of ill-balanced children, who have been forced to undertake a school education ill suited to their strength as well as mental endowments, the continued strain of years of effort results at the time of adolescence in a mental decrepitude from which after-treatment is powerless to rescue them, and they relegate slowly to the plane of the dement.

In the first stages, there is a period of ill-defined restlessness with depression of a passive character, but without delusions, hallucinations or motor excitement. Soon this restlessness passes away, and is succeeded by dull apathy, the victims taking no interest in anything about them, remaining dull-eyed to questions or

stimuli of varied nature, not even reactive to loud noises or pin pricks. All day long they sit passive in a chair or on the benches, with bowed head and drooping shoulders, eyes directed to the ground, unseeing, with hands livid and oozing sweat, and so remain for months until removed by a pneumococcus or colon bacillus infection.

In addition to syphilis and infectious diseases, it may possibly be that a lack of correlation between the internal secretions is again a principal factor in this passive dementia. Not a few have deficient thyroidea, and occasionally one may feel in the lobes of these organs little hard nodules that are abnormal.

(8) Chronic states of delusion and hallucination are mainly attributable to the after effects of drugs, and, in especial, alcohol. Auditory hallucinations are of more importance than visual ones, as they exert a deeper impression upon the sufferer, being but reflections of the person's abnormal thoughts, and accordingly are not so readily corrected. These false ideas and sense fallacies are in a measure permanent, fixed, in a crude way systematized, have a persecutory cast, and materially influence the lives of the sufferers, becoming to them the most prominent feature of their daily life, as well as influencing all their actions. Eventually they lead up to attacks upon others, or to suicidal attempts. Insight and judgment are seriously affected, and at last there begins a noticeable degree of dementia which deepens as the months advance, the sense fallacies becoming less and less prominent, until eventually lost in the general mental clouding.

We especially desire to call attention in this paper to the fact that the high imbecile is far more prone to the psychoses than man of higher mental development; that practically all forms of simple and complex mental disorders are to be found among them, though a number are represented in simplified form; that the pernicious action of alcohol in particular, as well as other drugs in less frequency, is much more marked upon them than on normal man, and is, in fact, the cornerstone of a vast majority of the delusions and hallucinations that possess them; finally, that few make a complete recovery from any of the forms of psychoses above enumerated, a terminal dementia of quick onset being the rule.

One addendum we desire to make to this article before closing. It is an inflexible law of nature that like can only produce like. The high imbecile reproduces his kind, and unrestrained by ethical laws, as well as care of the future, in ever-increasing numbers; the progeny to be an ever-increasing burden upon the tax-paying community, as well as a sore trial to the upkeeping of the law. If we leave this portion of our population to increase unrestricted and at an unnatural rate in proportion to the total increase of the people, the result is inevitable: they will eventually overwhelm by sheer numbers the producing population, and the race will then sink to a low level. I am reminded of a story read many years ago depicting the earth a thousand years hence. According to the author some fearful cataclysm had overwhelmed the entire world, leaving but few of its folk, and these soon degenerated. But they multiplied again in numbers as well as further lowered in the mental scale to below, far below, the rapine beasts of the forests. Fire they knew not, war and slaughter were their only arts; cannibalism was prevalent. Their single science was to destroy.

The only solution of the problem of the high imbecile is sterilization, and a general law affecting all the states should be enacted, compelling the castration or spaying in all educational institutions or asylums for the insane or defectives of those who are capable of reproducing their kind. Many physicians are opposed to such a law, mainly on the ground that it might produce an increase of venereal diseases, but these considerations are of minor importance compared to a general deterioration of the entire race. *Salus populi suprema est lex.*

## OCCUPATION OF PATIENTS.

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Its threefold function, therapeutic, recreational and economic, assigns to occupation of patients a position of prime importance in mental hospitals, especially the large state institutions treating and caring for all classes of the insane. The value of occupation in all of these ways has long been recognized and in varying measure applied, but until comparatively recent years the effort has rarely gone beyond the economic utilization of the willing and more intelligent chronic patients and the diversion and treatment of convalescents. These are the obvious and easy avenues of use demanding the minimum of effort on the part of the hospital administration and, while useful, limited in usefulness to a relatively small group of patients not very badly in need of the help.

From this sort of self-propelling activity to an organization extending the benefits of employment to the great mass of demented, untidy, destructive and violent chronic patients is a long step and a difficult one. The very existence of these troublesome classes of patients in the institutions is due in great part to the lack of occupation to which they have been condemned. Nowhere is it more true that idleness is the root of all evil. Certainly it breeds dementia and fosters the formation of untidy and destructive habits as well as bad temper and violence. A program of occupation which stimulates interest, replaces confusion with order and gloom with good cheer, contributes to the cure of many, and cuts down the cost of supervision and maintenance is well worth the effort involved in its establishment.

The great value of occupation in the treatment of the insane is determined by its infinite variety, adaptable to innumerable individual tastes and capacities, its range from utmost simplicity to stimulating technical exaction, but above all to its essential normality, constituting it for these unfortunates the natural passageway



back to normal life. Wandering attention is trained anew to concentration; distracting thoughts are pushed into the background; delusive concepts and hallucinations are crowded out of consciousness by demands of reality; depression and feeling of inefficiency respond to the encouragement of approbation; and self-respect is built up again by successive accomplishments which are tangible and afford satisfaction as they do in states of health.

The recreational quality is inherent in anything that breaks monotony and gives new or keener interests. The sight of other people variously engaged excites a desire for corresponding activity in the mind of one who is perforce idle, whether as yet unaccustomed to idleness or surfeited with it. We often observe among our patients this suggestive force of example, and find it of great assistance in the propaganda. Sometimes, indeed, applications for employment have to be refused to patients not yet in condition to be benefited by it. The diversional feature needs, however, to be emphasized in order to obtain the best therapeutic results. This can be done in a variety of ways according to individual temperament: for some the change to another kind of occupation introduces a sufficient new zest; for others the introduction of a social phase, such as group employment, with music and refreshments, or some form of competition, gives the work a flavor of play or a pleasing admixture of it.

The economic value of patients' employment is difficult to compute; it is certainly considerable. Their fancy work can be sold for at least enough to pay the cost of materials and instruction, and in our experience the same is true of the saving on products of the work rooms that are of use in the hospital, leaving as clear profit the large item of repair work done. The incomputable value is found in the diminution of loss from destructive tendencies associated with the aimless activity of these patients if unemployed, and the reduced cost of supervision and attendance resulting from the improvement in their habits as regards destructiveness, disorder and violence. A further very distinct benefit to the administration is to be noted in the better spirit which pervades the nursing staff when a régime of definite and interesting duties in connection with the industrial program replaces the drear routine of lolling and keeping an eye on a ward full of restless, unhappy, dull, and dirty demented.

At the Boston State Hospital there has been for the past five years an earnest effort on the part of the management to realize as fully as possible the benefits of occupation to the patients and to the hospital.

The ends sought have been purely practical, and may be summed up as embracing: (1) The substitution of purposeful and useful activities for the prevailing idleness of the able-bodied patients, with its attendant train of degenerative and anti-social tendencies, and the promotion thereby of better mental and physical health, improvement in habits and conduct, more contentment and capacity for enjoyment, renewal of hope, and the furtherance of recoveries; and (2) making the economic result such as to justify in itself the effort and outlay, leaving the therapeutic and administrative benefits as clear gain.

In 1910, the beginning of the period under review, the number of patients in the hospital was 785. The percentage employed was 40, practically all in the domestic and outdoor routine. There was a small sewing room in which an average of 18 women were occupied, and three or four men made mattresses in a basement room. There were no ward occupations outside of housework and a little sewing and fancy work by a few women, largely on their own initiative.

At the present time, with 1400 patients, the percentage employed is 60 and their occupations are classified as follows:

## JANUARY 12, 1915.

	M.	F.	T.
Census .....	614	789	1403
Employed .....	408	433	841
Percentage employed .....	66	55	60

## EMPLOYMENT.

Ward work .....	234	205	439
Handiwork in wards .....	59	168	227
Industrial rooms .....	60	86	146
In administrative departments, laundry, kitchens, etc. ....	59	55	114
With mechanics .....	16	0	16
Farm and grounds .....	47	0	47

Without going into the details of measures taken to effect this fairly radical change in practice and a still more radical change in spirit on the part of both staff and patients, I may state that the work was begun independently in the men's and women's depart-

ments, in each of which was opened a small industrial room, since greatly expanded, under the charge of an inexperienced but willing and capable head. These potential instructors were sent for brief periods to institutions where occupation of patients was under way and also to industrial establishments to learn materials and methods. Work was begun with the better grade patients to insure success from the start and they were given simple forms of occupation, after which the plan was to advance the capable workers to more complicated processes, filling their places with less promising beginners who should be, so far as practicable, instructed by their forerunners.

The men at first made mattresses, brooms and doormats and caned chairs, later taking up basketry, brushmaking, weaving, upholstery, woodworking, and finally the manufacture of straw hats, besides doing a great variety of repair work. There remain to be added in this department tailoring and shoemaking, both of which are planned to be started this year.

In separate quarters and in classes in the wards during the winter, men unwilling to undertake or to stick to the utilitarian industries mentioned have been taught wood carving, leather and ornamental metal work, occupations serving the purpose of stimulating interest and keeping alive the habit of doing something definite each day. The capacity for work thus fostered through the winter months is given useful and still more beneficial direction when spring comes, by the substitution of outdoor employment in the garden or on the farm or lawns; and the same change is made in the case of many of the regular workers in the industrial rooms, which, to quite an extent, are used as a preparatory school in our scheme of industrial education, as well as a finishing course in convalescence, fitting patients for return to productive life outside the institution.

In the women's industrial room the occupations are sewing, mending, weaving, spinning, rug making, basketry, braiding straw and making hats, lace making, all kinds of fancy work, knitting, crocheting, tatting, making paper flowers, stencilling, working in water colors, clay modelling. Taking into account the fact that some such work as the above is a part of the home life of practically every normal woman, we use the industrial room in their case more to get something started than as regular working head-

quarters. Patients are there given a chance to show their individual interest and capacity or given aid and instruction to develop these and are then encouraged to spend a part of their time in useful or agreeable occupation in their rooms or in the wards, thus giving to these quarters and to their life in them more semblance of home. Men, on the other hand, not being accustomed to such home occupations and finding their interest chiefly in varieties of work requiring tools and making litter and noise, cannot so well be left to follow their employments singly or in groups in the wards, though this is done with them to quite an extent, too, several wards having frames for hooked rug making, or light looms for carpet weaving; in others there is group employment in such simple work as ravelling old stocking tops for use in the weaving room, braiding straw for the hat industry, and picking hair for mattresses.

The organization for occupation comprises two divisions, one for men and one for women, each of which is headed by an instructor who has one assistant. The instructors have charge of the industrial rooms where they direct the patients and also train attendants and nurses to act as assistant instructors in the wards. The practical experience thus acquired by the nursing staff is supplemented by lectures and demonstrations given as a part of the training school course. The head nurse in each ward is responsible for the maintenance and further development of suitable occupations among her patients, and she has the assistance of the instructor, who at stated times visits each ward to inspect and direct the work and in certain wards to give class instruction. This is the program for the women. With the men it has not been practicable to follow exactly this plan because the industrial room demands all of the instructor's time and the ward occupations of the men do not require so much expert supervision.

After some success had been obtained in developing the interest and cooperation of the nursing staff and the more intelligent and willing patients, special attention was given to the occupation and training of the least intelligent class and to the introduction of safe and suitable occupations in the ward treatment of those with violent and dangerous tendencies, for it was felt that these were the larger and more important fields for really effective work. For this latter class the straw hat industry, now well established, has proved most satisfactory. The work of braiding the straw is simple, in-



teresting, clean, and no tools are required. Hair picking, ravelling, to some extent rug making, and, for the women, sewing are other employments suitable for these wards, which have as one of their benefits to the patients engaged the not infrequent improvement in conduct sufficient to allow transfer to the regular work rooms and participation in other industries.

The simpler ward occupations mentioned are of particular value in dealing with demented patients who cannot go to the work rooms, but, when weather conditions permit, their use for this class is almost entirely supplanted by outdoor work. Our best industrial exhibit is the series of wards empty of these patients, who are to be found in large parties on the grounds engaged in the simple tasks of digging, wheeling earth, gathering and breaking stones, etc.—developing one by one into really capable workers suitable for the more responsible tasks of farm or garden and earning transfer to higher grade wards with pleasanter companionship.

The training of these patients to usefulness and their own betterment is work that demands intelligence and wholehearted interest on the part of the employees entrusted with their direction. It cannot be done successfully unless the attendants are carefully selected, properly instructed in the principles to be used and the objects aimed for, and stimulated by constant suggestion, discussion and, above all, approbation of results attained. Success is won when the employee is made to realize the dignity and value of his work as an agent in the patients' treatment and learns that his results are not measured by the volume of their work product alone.

In like measure, though in less formal fashion, all heads of departments—the chef, the laundryman, the mechanic, the engineer, the farmer—and their assistants, became efficient industrial instructors and incidentally valued agents for treatment, since all have patients assigned to work with them, and, even if prompted originally by no higher motive than self-interest in the development of capable assistants, they deal out to their charges the helpful stimulus of cordial companionship and a common purpose.

## THE THERAPEUTIC AND ECONOMIC VALUE OF DIVERSIONAL OCCUPATION.

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Temporal limitations will not permit a complete treatise of the Therapeutic and Economic Value of Diversional Occupation at the present time. The unlimited number of possibilities which arise in developing a systematic order of diversional occupation makes this project a stupendous task. The difficulty of obtaining from all the institutions in the country complete data relative to the important phases of this mode of treatment is another barrier in the way of a full treatise. Only a few of the important phases of this subject will be discussed in this paper.

The armamentarium of diversional occupation has a myriad of facilities which are valuable for therapeutic purposes. The form of work assigned should be consistent with therapeutic indications in each psychosis. The reactive effects should be carefully evaluated by a physician conversant with this régime of treatment. It should not be left to the haphazard judgment of untrained nurses and attendants. Before work is assigned, a careful study should be made of the peculiar complexes of each psychosis in order that the work prescribed will not militate against the improvement of the patient's mental condition. The chief aim is to obtain a total or at least a partial restoration of initiative to do work which will be beneficial to the health of the patient and a contribution to his resources and the wealth of the institution.

Any form of work which diverts the attention of the patient from his morbid ideas and false sensory perceptions may be regarded as a diversional occupation. In the treatment of certain

psychoses, it is important to obliterate the painful recollection of sublimated experiences which were contrary to natural instincts. In order to do this, it is necessary to have a great diversity of intensely interesting activities which will attract and retain the attention of the patient. Any form of occupation which will arouse from his state of inertia an apathetic patient who does not ordinarily respond to external stimuli or show a tendency to react to internal processes, may be included in this category. Where there is unbridled and irrepressible psychomotor activity, any form of work which will give a patient a wholesome vent for his dynamic energy should be included in this class.

The important prerequisites for the establishment of indoor diversional occupation as a rational therapeutic procedure should comprise a building properly ventilated and illuminated, with interior furnishings that are harmonious in arrangement. All the modern safety devices for the prevention of accidents in the manipulation of the machinery should be installed. An emergency equipment for the treatment of any patient who might become suddenly ill or injured should be easily accessible. If there is available space, provision should be made for a retiring room where a patient becoming fatigued might lounge for a short time whenever a respite from his work is indicated. These requirements are no more than the ordinary ones which are found in any modern factory conforming to the most recent laws regulating industrial enterprises.

If it were possible to make a complete subdivision of all the kinds of labor and determine the therapeutic value of each increment in the production of a commodity, then we might have a materia medica of diversional occupation that would be an excellent basis upon which to establish a régime of treatment. This is hardly possible. For example, the unlimited activities that are involved in just one department, such as the arts and crafts, would make such a scheme Herculean in its task. Nevertheless, a modest attempt might be made to classify certain occupations according to the peculiar effect that they have upon the patients engaged in them, and this classification used as a criterion for the administration of ergotherapy.

A few of the occupations which have been efficacious in re-activating apathetic patients, the attaining and retaining of their

attention, the arousing and holding of their interest, and the reformation of their behavior from destructive and vicious demeanor to one of orderly personal conduct, may be described as follows:

The manufacture of Colonial mats requires a very simple device in the line of equipment. It consists of a notched four-sided wooden frame which is adjustable to various dimensions. Any kind of yarn, preferably bright colored, can be used as working material. The technique in the manufacture of Colonial mats is very simple. It requires the repetition of the same kind of motor activity for a great number of times, and when a variation is made in this activity, the change is so slight that it does not severely tax the memory and judgment of the patient engaged in the work. The yarn is wound for a given number of times around two of the notches and then is changed to the next set of notches. After a series of these have been completed, the same operation is repeated in such a way that the strands of yarn intersect the preceding bundles. The next step in the process is the stitching of the bundles of the yarn at their points of intersection. In this part of the work, a great variety of colored silk or cotton yarn may be used with special advantage. The profusion of colors invariably attracts and holds the attention of the patient. He seems to get delight in the manipulation and sorting of these colored fabrics. Those who have initiative and active imaginations find an easy medium for expressing their ideas. Those who are stupid and apathetic find no difficulty in following the directions of their instructor.

This simple form of work has been valuable in the re-education of apathetic patients who have been diagnosed as cases of dementia præcox. It has been found that the technique is very easily acquired and retained. The retention of the new motor habit is done with a marked degree of accuracy. The variety of colors is used very advantageously to arouse their interest, and it is not unusual for a patient to show a predilection for a certain color scheme, and while permitted to follow out this scheme will work industriously. In the selection of colors, it has been noticed that red, or some shade of this color, is chosen the greatest number of times. The warm colors seem to attract the patients and delight them more than the cold or neutral tones.



Even though a patient is inaccessible and incapable of carrying on a conversation, he will respond to instructions in this simple form of yarn work if the instructor has sufficient ingenuity and patience to devise a way of demonstrating the technique of manipulating the material. Sometimes it is necessary to take hold of the fingers of an apathetic and inaccessible patient and work them through the motion a sufficient number of times to establish a new habit of activity. After this is accomplished, it is necessary to repeatedly correct him in order that he may obtain regular alignment and proportions in the adjustment of the material with which he is working before he can be permitted to go on independently.

If these educative methods bring about a new mechanism of motor activity, one that the patient has never before engaged in, and enables him to produce useful commodities, then this phase of diversional occupation might be rightly classed as a form of vocational education. If the patient becomes capable of producing utilities that have a market value, he will have an important asset in his favor for readjustment to social conditions should he recover sufficiently to be discharged from the hospital.

The art of rug weaving affords a great many opportunities for specialized activities. There are several distinct subdivisions of this work, and each one can be used with special advantage in treating the peculiar behavior of the various psychoses. The subdivisions of this work include the collecting, the sorting, the tearing, the sewing, the skeining, the dyeing, the reeling and the weaving of rags. The preparation of the loom for this work requires exceptional skill and accuracy. The warping of the beams and the tying in of each thread in the warp is very tedious work, and requires considerable experience. A brief analysis of the various subdivisions of rag carpet weaving has revealed the following possibilities of their therapeutic values:

In the treatment of middle grade imbeciles who have a tendency to be destructive and troublesome, it has been found that the tearing and sorting of the rags will hold their attention and keep them happily engaged in work. This division of the work can also be done by agitated and restless patients who have symptoms of the hebephrenic form of dementia præcox. The tearing and sorting of rags does not require much concentration of thought and is,

therefore, very efficacious in treating the restless and agitated dementia præcox patient who is not able to keep quiet without some form of restraint or sedative medication. The sewing, skeining, dyeing and reeling of the rag strips can be done by patients afflicted with any of the other psychoses, provided their physical conditions will permit them to perform the work.

When the large hand shuttle or fly shuttle looms are used considerable energy is required to operate the reed frame. In addition to accurate judgment in the arrangement of the picks, especially when an artistic design is being woven into the rug, a keen inspection must be made of the lay of the warp in order that the finished product will not show evidence of irregularity in construction. It has been found that manic-depressive patients in the manic phase of this psychosis obtained exceptional delight in operating these looms and do their work with thoroughness and accuracy, and oftentimes they become so interested in the work that it is difficult to get them to discontinue when they are called to return to the dining rooms for their meals. In order to make this work attractive, a great variety of colors is used and the patients are permitted to work out their own color schemes.

A similar description and analysis can be made of the technical requirements of all the other industries, but this would be unnecessary for the purport of this paper. It may be apropos to enumerate a few of the more important industries that have recognized therapeutic value in the treatment of the patients: Chair caning, reed, rattan, willow and raffia basket making, cocoa mat weaving, Navajo mat and rug weaving, upholstery, rag carpet, scrim and towel weaving, stocking and sweater knitting, shoemaking, embroidery, macrame and Mexican drawn work, lace making, water color and oil painting, leather staining and tooling, clay modeling and the ceramic arts, cement work and the plastic arts, pyrography and stenciling, Indian bead work, paper rope and cardboard construction work, carpentry, cabinetmaking, Sloyd work, picture framing, brush and broom making, copper metal work, Venetian iron work, metal spinning and burnishing, printing, paper ruling and bookbinding, truck farming and laundry work. To this list might be added a department in domestic science with a modern equipment for the special treatment of women patients. All the industries that have been enumerated may be engaged in by the

men and women patients where the symptoms of their psychoses indicate any form of occupation.

There are a great many unique methods which can be applied to make the work attractive to the patients. One valuable scheme is to establish a schedule of rewards for their work. There are a great many rewards which do not entail any cost which may be offered to the patients in consideration of their enthusiasm and diligence while engaged in the various occupations. These rewards will vary according to the traditions and the rules and regulations of the institution. The privilege of parole or freedom of the grounds seems to be one of the most popular requests made by patients, and in some cases the most difficult one to grant. This may be consistently granted in all cases where the mental condition of the patient will warrant such freedom. If this privilege is granted contingent with the regular attendance at the occupational classes it is oftentimes the only reward necessary to satisfy the additional demands of the patients and is an admirable way of keeping them interested in their work. When this cannot be granted, other minor privileges may be offered, such as an opportunity to go on strolls, to attend the outdoor sports and to go in small groups and play outdoor games. A slight modification of the limitations placed upon the patient's social activity in the institution is often followed by renewed enthusiasm and more diligent application to his work.

In order to substantiate the claim that a given form of occupation has a definite therapeutic value, it is necessary to cite actual cases that have responded to this treatment without receiving any other in addition, such as hydrotherapy, electrotherapy or the regular hospital routine medication.

Patient, W. M. S., No. 3931, admitted March 15, 1894; age at time of admission 30; occupation, printer.

*Mental Status:* Onset of psychosis, one year, eleven months before admission. He had delusions of conspiracy and persecution. He was suspicious and constantly in a state of fear. He made homicidal threats directed against his persecutors. He was very sensitive and irritable. Previous to the onset of his psychosis, he was a very religious man but showed a complete change in his attitude toward religious subjects and ridiculed all sacred laws. Diagnosis—Dementia Praecox, Paranoid.

The hospital history of this patient is one of special interest. He had been in the institution 20 years previous to the opening

of the Industrial building. During this time he gave frequent evidence of reacting to auditory hallucinations and entertained delusions of persecution, influence and slander. At times he became very vindictive and often threatened to injure the attendants or to take vengeance upon his persecutors. At one time he claimed that an attendant put insanity into his head by shaking keys at him and caused him to have a sensation in his brain which resembled "the shaking of shot in a pan." During the first few years of his residence in the hospital he was subject to outbursts of anger and wrath together with forceful motor impulses to injure any one who happened to be near him. During the last ten years he has been frequently irritable, pugnacious and violent, and at times his conversation teemed with profanity and vile invectives.

He was assigned to the printing department of the Industrial Building. During the first two months he was unable to engage in any of the work. He was reticent and showed a disposition to avoid associating with any of the other patients or cooperating with the instructor in charge of the print shop. He carried on a conversation in a monotone to himself and when interrogated he would not pay much attention. If a reply was elicited, it was usually irrelevant, and his conversation was characterized by a desultory and incoherent trend of ideas. After considerable encouragement, he was induced to distribute type. It required several days for him to recall the location of the letters in the type case. After he had mastered this part of the work, he seemed to have difficulty in differentiating the sizes and the faces of the type and succeeded in pieing one case of type before this defect in his workmanship was corrected.

In treating this patient, special care was taken to avoid criticising him lest he might become dejected as a result of his failure to comprehend the order of his work. As he became more adept in his work he was given more difficult tasks to perform. He was put on the composition of straight copy, which seemed to interest him more. He began to make rapid progress in his recall of automatisms or trade habit formations which were the component parts of his original skill as an expert compositor, a reputation which he had before the onset of his psychosis.



By putting at the disposal of this patient the necessary facilities for doing work under strictly hygienic conditions in company with congenial fellows, it was possible to enable him to make a practical application of those complex motor processes which are so essential in the development of adroitness as a compositor. If a gradual increase in a person's efficiency can be regarded as a form of improvement in treating a mental disorder, it might be said that this patient has nearly recovered because he is capable of turning out work with the same degree of accuracy and speed as that done by a regular qualified compositor. It is hoped that there will be recovery, based upon the normality of his other mental processes involving the exercise of judgment, initiative and the control of instinctive reactions that are necessary to protect the individual against adversities when in competition with other men of his class so that he may return to his former environment and useful citizenship. This patient is 50 years of age at the present time and it is unlikely that he will recover sufficiently to permit his discharge from the hospital, nevertheless the remarkable improvement in his behavior and the increase in his personal efficiency is a strong recommendation in favor of the therapeutic effect of diversional occupation. He takes more interest in his personal appearance and has a desire for a great many things that never gave him any concern before he engaged in this occupation. He is enthusiastic about his work, takes a great interest in each job that is assigned to him, and also evinces pride when a copy of his work is handed in with an O. K.

Patient, B. G., No. 8102, admitted December 22, 1906, age at time of admission 39, occupation, civil engineer.

*Mental Status:* Onset of psychosis, eight years before admission. A severe blow on the occiput when a youth was given as the alleged cause. He had delusions of persecution and political conspiracy. He threatened homicide and suicide. He lost his power of concentration of thought and had to discontinue his work. He wandered aimlessly from one place to another as directed by the peculiar content of his delusional system. He had the idea that he was being changed into a woman. Diagnosis—Dementia Praecox, Paranoid.

This patient has been in the hospital nine years. After admission he showed evidence of reacting to auditory and visual hallucinations. He was very delusional and claimed that he was undergoing a transversion of sex. For several years the sexual

complex seemed to be the predominating content of his ideation. At times he was very irritable, arrogant and vindictive. He had frequent episodes of maniacal outbursts and became very pugnacious and destructive. While in this condition, his conversation was rampant with profanity.

When he was assigned to work in the arts and crafts department of the Industrial Building there was considerable doubt about the possibility of this patient adjusting himself properly to the requirements of this work. He was first tried in the class that was making Colonial mats, and at his own pleasure was permitted to inspect the work that was being done by the patients in the other departments. In the arts and crafts department there is a great variety of materials, fabrics and apparatus from which a patient may choose. He was treated in this respect precisely as the other patients. He was permitted to select any kind of work that appealed to his attention. The most difficult problem was easily solved as soon as a definite occupation was found to engage and hold his attention. He showed a predilection for water colors and was permitted to use them at his own discretion. He was given a large collection of stencils with brushes and a great variety of colors to work with, and was permitted to scheme his own designs on the material at hand, irrespective of the value or the amount he wasted. He was permitted to change from this task to another as his whims directed. After two weeks work in this irregular way, an aim was made to engage him in some definite line that would be of value to the institution. In a short time his talent, which is based upon a grotesque imagination, was directed to the production of artistic designs and patterns which are used in the manufacture of rugs and carpets, embroidered runners and scrim curtains.

In some respects the change in this patient's condition is similar to the previous one, in that diversional occupation enabled him to find a means whereby he could recall certain constructive technical registrations that had been made in his brain during the early years of his training while a student in an institute of technology. There has been a remarkable change in his behavior since he has been engaged in this work. He is more congenial and affable. He enjoys his work, and takes great pride in producing a design or copying a picture which meets with the approval of his in-

structor. This patient is 40 years of age at the present time, and even though a complete recovery to enable him to return to his former occupation as a civil engineer may not occur, nevertheless the facilities offered to him for engaging in this diversional occupation have gone a long way toward checking the process of his dementia and enabling him to make a more harmonious adjustment to the limitations of institutional environment. This patient has not been receiving any other form of medication or therapy in conjunction with diversional occupation, therefore it is not unreasonable to claim that he is being decidedly benefited by this method of treatment. A great number of examples similar to these might be cited.

There is no system so vicious as that which relegates a patient afflicted with a mental disease to the solitude of a custodial institution and totally disregards the residual earning capacity of that individual.

The economic value of diversional occupation is given a place of secondary importance from a medical point of view, but there are a great many fundamental principles involved in this problem and they must receive careful consideration. A thorough knowledge of the market values of the raw materials that are to be used in the construction of utilities is a very essential requisite. A comprehensive knowledge of the various devices and apparatus that are necessary for the development of an industrial department is of no less importance. The inauguration of a competent clerical system for calculating the exact cost of each increment in the process of production is necessary in order to guarantee a reliable tabulation of economic results. The same business acumen is required in developing a successful industrial department for diversional occupation as that required in the establishment of any mercantile enterprise having for its ultimate aim the production of commodities on a profit-paying basis.

The rendering of waste material into new hospital utilities offers the greatest range of activities, not only for the treatment of the patient but also for the economy of the institution. For example: The redemption of old brooms requires several well-defined activities and it has been found that patients who have destructive tendencies will work with a great degree of satisfaction and delight in tearing apart these unserviceable articles. They

find vent for their destructive tendencies and thereby conserve their own clothing and the property of the institution.

There are instances where the prescription of a certain kind of work to allay the distressing symptoms of a psychosis will actually entail a waste of material, but there is a compensation for this loss if the prescription of work takes the place of administering drugs, and, ultimately, there is an actual profit if the patient eventually becomes a producer of articles which have a value greater than the loss of all the material that he has used. Sedatives and narcotics, even though valuable in emergency, are in themselves expensive measures for treatment, and also include the possibility of a habit formation which may result in a gradual increase in the cost of maintenance and treatment; on the other hand, a certain kind of occupation may cause a habit formation which will invariably result in an increase in the efficiency and the productive power of the patient. In summing up the salient facts relative to the therapeutic value of diversional occupation, the following conclusions hold true:

Diversional occupation is an efficacious method of treating mental diseases.

It retards the regressive process of dementia by renewing the patients' interest in coordinate activities and by reorganizing their habits of behavior. By reeducating patients who were highly skilled laborers before the onset of their psychoses, it is possible to partially or totally restore them to their former technical efficiency.

It provides a wholesome vent for dynamic energies in psychoses with accelerated psychomotor activity.

It diminishes the frequency of delusional deductions from hallucinations and illusions by absorbing the attention of the patient in attractive and pleasant pursuits.

It puts the patients in closer harmony with their surroundings and fellows, and gives them a personal interest in the welfare of the hospital and of the other patients.

It may provide a vocational training which will enable the patients to take up a more suitable and remunerative form of occupation after being discharged from the hospital and thereby prevent a recurrence of their psychoses.

The value of this method of treatment is in direct ratio to the efficiency of the physicians and instructors, and their personal interest in this form of therapy.



The economic value of diversional occupation depends upon :

The business acumen of the physician in charge of this method of therapy.

The integrity of the nurses and attendants in charge of each department and their conscientious endeavor to obtain the best results.

A thorough knowledge of the requisition system of the institution.

A careful analysis of the wants of each department, and the methods of disposing of unserviceable articles.

The elimination of archaic devices and the introduction of modern apparatus for work.

The rendering of all waste material into new hospital utilities.

The inauguration of modern efficiency methods of computing the cost of production.

When diversional occupation is introduced in a hospital as part of the therapeutic régime, it is important to give careful consideration to the following :

A systematic schedule of hours and work is essential for the constructive and progressive development of diversional occupation as a therapeutic measure.

The education of the illiterate and inefficient patient is just as important as the reeducation of those with psychoses which have obliterated their former capabilities.

The assignment of work should be varied frequently in accordance with the therapeutic indications.

Amusements and play should be introduced in conjunction with diversional occupation, but should not be made the chief aim of this method of treatment.

Instructors can be trained for this special work from the regular force of nurses and attendants when individuals temperamentally qualified can be found. They must be encouraged, given definite problems to work out and supplied with adequate facilities.

## DISCUSSION OF ADVANTAGES OF OCCUPATIONAL SCHEDULES.

By C. FLOYD HAVILAND, M. D.

Modern efficiency methods demand systematization as a requisite for success in all organized human effort. An occupation schedule is valuable only in the degree in which it provides for systematization and organization of occupational and reeducational work. Haphazard methods may produce good results in individual cases, but a schedule is necessary to insure continuity of effort and to secure the benefit of reeducational work for the greatest possible number. It should, however, be regarded only as a framework for intensive personal effort on behalf of individual patients. A schedule possesses no intrinsic value which cannot be nullified by unintelligent operation. Being but a means to an end, it must be operated by persons fully appreciative of the end sought, that the life of intelligent purpose may be instilled into the skeleton schedule.

The value of a schedule is not confined to the patients to whom the regular order of scheduled activities is oftentimes the first attempt at well regulated living, but the patients' caretakers, not even excepting physicians, are taught by it that order which is the basis of all true efficiency. It teaches the value of giving heed to the disposition of the whole of a patient's time and the desirability of regarding nothing affecting a patient as too minor for medical attention and direction.

The best results from an occupation schedule are obtained when all work done by patients in an institution is covered by it. The ideal general schedule, however, not only provides for work done by patients, but also provides scheduled periods for rest, recreation and exercise. Too often the workers on the farm and grounds, and in the kitchens, laundry and shops are not only assigned without sufficient regard for individual needs, but too often do they continue to perform the same tasks in a mechanical manner for indefinite periods with little more manifestation or need of mental ac-

tivity than were they to remain absolutely idle. The ideal general schedule will correct such conditions by bringing to attention the length of the work periods, especially in their relation to periods for rest, recreation, and exercise. The ideal schedule places the latter important factors of a patient's life on a systematic basis and renders them subject to detailed regulation so that there is a proper correlation between them and the work performed. Lacking a schedule, the shop worker is apt to be overlooked in the matter of recreation, and the woman patient weaving rugs indoors may obtain insufficient outdoor exercise, or the faithful chronic patient working daily in the kitchen may never know a day of rest, while other able-bodied chronic patients never know anything else for lack of intensive personal effort to teach them some form of occupation. Such a schedule renders it easier to change patients about from one form of work to another as needs arise, while it also brings to light unsuspected inequalities in the distribution of patients working in different departments, especially in the number of ward workers on different wards. The latter is often determined in an unsystematic manner, with little regard for either the needs of the patients for the work, or the actual needs of the work. While, of course, the patients' needs are paramount, the needs of the work to be done are not therefore to be entirely disregarded. Some time since, in formulating a general schedule for the Kings Park State Hospital, it was found in a so-called working ward the ward workers were in the proportion of one to five, but it was found possible to reduce the proportion to one to nine without seriously hampering the ward work, and thus, there was released a considerable number of patients for work better adapted to their respective needs.

The value of a schedule depends in a large measure upon its detailed formulation which, in turn, largely depends upon available facilities, but a schedule should embody as many different forms of activity as the means at hand render possible, ranging from the simplest forms of purposeful movement to the more complicated occupations, that there may be as close an approximation as possible to many varying capacities. This, of course, implies careful grading. Not only may different forms of work be graded with respect to their difficulty, but in the more complicated activities numerous different groups of patients may be formed, based on

the capacity shown by each group, that contrast between lack of capacity and efficiency be not prominent. The newly awakened or the partially awakened interest is easily lost, and many deteriorated patients are surprisingly quick to recognize their own lack of ability when contrasted with the ability of an efficient worker. With an original lack of interest, such a situation removes the objective point of possible attainment to such a distance that initiative is destroyed. There are always enough individual differences between the members of even small groups to render it possible to use the spirit of emulation so far as it is useful.

The ideal general schedule can be regarded as one divisible into four divisions ; one division covering the usual service departments in which patients are employed, such as the shops, farm, etc. ; the second, the division of physical culture for muscle training for those unable to do muscular work and those engaged in sedentary occupations ; the third, the division of school instruction which includes kindergarten methods, so often found successful in beginning reeducational work ; and the fourth, the division of special occupation classes, including the usual classes in basketry, brass work, and the numerous other forms of productive handicraft. Such a schedule provides some form of purposeful activity for the majority of the patients in any institution, it being safe to say that not more than 30 to 35 per cent of an average insane population are incapable of receiving benefit from one or more of the forms of occupation provided in such a plan.

A schedule should never be so operated as to imply monotony. Instructors must always feel free to vary the work within certain limits for individual needs. There should be an entire absence of formality and rigidity. In the reconstruction of a personality special situations demand special treatment and much depends on the tact and initiative of instructors. The slightest evidence of awakening interest must be noted and encouraged in every possible way. Hence, it follows that even in a single scheduled class, different patients may with advantage follow different occupations. For instance, at Kings Park, one occupational class has members some of whom may at the same time be working at metal work, pyrography, basket making, or the manufacture of artificial flowers. The same patient who attends the day school in the forenoon may often be found later in the day receiving instruction



in the drawing class or the art class, or, at a still later period, receiving instruction in the physical culture class, which, whenever the weather permits, is conducted on the outdoor playground. The best schedule forms merely a stable basis for flexible methods as to the details of instruction given individual patients.

In conjunction with a general schedule, individual schedules for selected cases are often found useful. It is, however, impossible to offer more than generalizations as to the character of individual schedules indicated for individual patients. Unfortunately, we still lack exact data as to how and why dormant interests are aroused by any given form of reeducational work and the individual schedule needs often to be altered in response to individual reactions. Two apparently similar cases may show totally dissimilar reactions and, hence, in connection with every individual schedule, detailed records should be kept showing response or lack of response evinced by the patient to efforts made in his behalf, it being quite as valuable to know negative reactions as well as positive ones. With accurate records of reactions to individual schedules many obscure cases are often surprisingly illuminated. Mood variations with the cause thereof and hidden trends of dynamic value are brought to light, while not infrequently the chain of reeducational events is rendered intelligible by the retrospective account given by a convalescent patient. Only by the accumulation of accurately prepared records of the operation of individual schedules will we be in a position to substitute for our present methods of rather loose generalization specific schedules for specific conditions.

## SHOULD PATIENTS BE REWARDED FOR INDUSTRIAL OCCUPATION?

By CHARLES E. THOMPSON, M. D., GARDNER, MASS.

Not notified that I was to be called upon until coming to the meeting, I have not prepared a formal paper. Recently reviewing the history of industrial therapy since 1850, the thing that struck me most strongly was the fact that we are talking about doing the same things to-day and using the same methods of encouraging occupation that they did in the fifties and sixties. Why have we not made greater progress since that time? It seems to me that the one important thing is the interest the superintendent of a hospital takes in industrial treatment. The interest that the board of trustees take is often governed by the interest of the superintendent, so that above everything else, it seems to me, the necessary thing is the active interest the superintendent himself takes. If we view the institutions which have made the most progress in the last few years, I think in nearly every instance we will see that the superintendent has taken a great deal of interest in the work. There are occasions when assistant physicians are enthusiastic, and if so they do a great deal, but if they do not have the active cooperation of the superintendent they do not get very far. Then the superintendent must have enthusiastic instructors in order to get results, and should make it a point to keep them interested and enthusiastic. It seems to me that this is the important thing, to stimulate rather than to pay patients for work done. The average patient will work if given certain pleasures: special praise; ribbons; material with which to make dresses, etc.

As for remuneration, it seems to me that the most necessary thing to develop is an industrial atmosphere. When this is developed difficulties in interesting patients in occupation vanish to a marked extent. I have had in mind for a number of years the working out of something like this: Instead of actual money in circulation, have small coins made of papier-maché which could be given to good working patients, they in turn able to present these at a

small store established for the purpose and make purchases with this paper money. I have delayed, however, in carrying this out because I have believed it open to the same objection as actual money, *i. e.*, working for money and not because of interest in their work. It is a little difficult to say how such a scheme would work out, so, at the present time I am inclined to exert every effort toward stimulating an industrial atmosphere, and not to cause patients to expect money in return for treatment.

To-day we are considering more and more the tax-payer, and I think that there is something to be said against the tax-payer supporting these patients and we in turn paying the patients for the work they do.

## IS AN OCCUPATION TEACHER DESIRABLE?

By HENRY I. KLOPP, M. D.,

*Superintendent Homœopathic State Hospital, Allentown, Pa.*

The question with the progressive institution for the care and treatment of the mentally sick at the present day, is how well not how economically can they be treated. The attitude of superintendents and physicians connected with such hospitals is to try and find out, as far as possible, how to most intelligently care for the patients, and to treat each one as an individual case. It is no longer a problem of whether the patient is to be controlled by mechanical or drug restraint, or placed in seclusion (perhaps oftentimes terrified and roughly handled) without accomplishing anything; instead kindness, simple tact, patience, common sense, are used, and above all, sound judgment in the application of "scientific knowledge" whereby the patient receives as intelligent attention and study as a case suffering from physical disease admitted to a general hospital.

Until within recent years, children in our schools were treated alike: the precocious, as well as the retarded child, received the same teaching regardless of his mental endowment or physical health. At the present time, at least in our large cities, the progress of backward and retarded children is improved by special classes, individual attention and training being given under the supervision of teachers adapted for such work. In like manner in our mental hospitals, we no longer content ourselves year after year with housing and looking after those who are unable to care for themselves, but attempt to solve the problem of restoring to health the patient placed under our care; or to correct persistent turbulence, destructiveness, profanity, abusiveness and untidiness; also to overcome the reverse—listlessness, indifference and apathy. We do not depend upon the boy or girl brought in from some country district or employment agency to care for our patients, without any instruction, but give our nurses a three year course in training.



With the foregoing introduction, to me at least it is self-evident that an occupation teacher is desirable—and by this I imply one trained for the work. I am well aware of the fact that there are institutions where a competent superintendent of nurses, in addition to her regular duties, can direct the diversional occupation of patients; others have found nurses who manifested ability along these lines and by developing them are accomplishing good work. This, however, is more applicable to institutions which have been in operation for years, and not to hospitals of more recent organization. The great difficulty is that the roster of nurses and attendants in our mental institutions is a very changeable one, and as a result this work is given secondary consideration when there is a shortage of the nursing force and much less is accomplished than is the case where a teacher is in constant service.

The very fact that we endeavor to treat our patients as individuals, by the application of "scientific knowledge," is ample reason for the above contention. Industrial teachers for the mentally sick are as necessary as special teachers qualified and adapted to teach the retarded and backward children in our schools.

For fifteen years, at least, the occupational movement has gradually extended, and with it, a plea has gone out for intelligent direction of the work. Through the recognition of this vital need, an agitation started which resulted in the establishment of a Course in Occupations in the Chicago School of Civics and Philanthropy. This being supplemented by a course of lectures on the great social and civic problems connected with the care of the mentally sick. The importance of giving instruction in diversional occupation was also recognized by the Pratt Institute—Normal Art and Training Course; by Cornell University; Cooper Union and New York School of Art; and Teachers College of Columbia University.

While I do not wish in any way to depreciate the self-trained instructor, nevertheless I am confident that the teacher who has specialized in occupation is far better equipped and accomplishes more than the self-trained member of the nursing staff. There is more stability and uniformity in the work. The trained teacher has, or at least should have, a larger scope in the variety of occupation; and in addition, is equipped to take charge of and direct kindergarten work for those whose minds are much enfeebled as a result of the psychosis, and the mental defectives.

As already stated an occupation teacher is capable of instructing in a variety of work, and if she studies the individuality of the patient, giving attention to personal expression in each case, can develop the individual by appreciation and encouragement of any effort that is spontaneous.

Industrial work thus becomes the most far reaching of all diversions. Interest is aroused in the using of hands; the patient is diverted from his abnormal tendencies and ideas, bringing about gratification and joy to the patient and instructor in the results accomplished. This is especially so when there is a large variety and kind of occupation suiting all tastes, whims and idiosyncracies.

The well-equipped occupation teacher plans and prepares work from day to day; she urges improvement in the character and quality of the work done, and those lacking in concentration or interest are diverted through kindergarten methods; and as I know to have been the case, many of these patients, by force of habit and association with others, become interested in what is going on about them and request work of a material nature such as plain sewing. Through the services of an occupation teacher we have a means of arousing and holding the interest of the individual, resulting often in material improvement or recovery.

I may also add that the occupation teacher should work under the direction of the physicians who are in charge of the patients placed under her supervision, and that there must be full cooperation: the physician giving the instructor an idea of the mental characteristics of each patient that she may be better enabled to find suitable occupation which may interest and benefit him; the teacher from time to time consulting with the physician, especially when no progress is manifested. Thus by medical supervision and cooperation the therapeutic object is more nearly accomplished; providing, likewise, that the physician who selects the patients has their best interests at heart.

The wise teacher combines *recreation* with *occupation*; is capable of introducing diversion by the use of calisthenics, gymnastics, folk dancing, marching, singing and piano playing; also of entertaining by reading and telling stories—thus overcoming the tendency to fatigue and listlessness of special groups of patients and holding their interest for longer rather than short periods. By

diversified occupation and recreation the teacher is able by one means or another to get the dull, indifferent, and even suspicious patient interested—observing and watching what the others are doing, they are gradually encouraged to do the same thing. The final result should be physical and mental improvement brought about by bodily and mental exercise.

The occupation teacher has a further field of usefulness, and that is interesting patients in gardening. The tilling of a plot of ground and the planting of flowers and vegetables have a decided therapeutic value in that they take the patient out of doors, give exercise, stimulate interest in work—with the opportunity of observing direct results. This is accomplished by picking flowers, thus bringing cheer to more than one; and pleasure also from the privilege of using the vegetables and arranging a supper away from the regular dining room, and an occasional picnic party.

The occupation teacher, however, would be very limited in her scope as to the number of patients she could reach, especially in our state hospitals, without the assistance of the nursing staff. It is my opinion that she should be connected with the teaching organization of the training school. Every pupil nurse should be required to take a period of instruction in diversional occupation; the best results being obtained by having industrial rooms. Here the nurse receives instruction in the preparation of materials, designs and color schemes; she, as well as the patient, acquires an interest in diversional work and recreation and obtains a knowledge of the therapeutic benefit to be derived from the work. In this way special talents which a nurse may have are manifested and put to use; if she has acquired enthusiasm and shows an interest in the work after her period of instruction has passed and is returned to the ward for active service there, her usefulness to the hospital has increased materially. In this way the occupation teacher has a larger field of usefulness—the diversional work reaching every part of the institution. Thus all types and classes of patients can be interested: those who desire a change from the daily life and routine of the wards, by having an opportunity to go to the industrial rooms; and those who through lack of interest are indifferent, apathetic and do not care to move about, are diverted by occupation and recreation. How? By having nurses who have been thus taught in charge of groups of patients on every ward of the hos-

pital; the occupation teacher directing the work, by going from place to place encouraging interest, and in this way keeping occupational activities at their highest efficiency.

In closing, let me say *an occupation teacher is desirable*, providing she knows a variety of occupations and recreations, has an adaptable personality, is interested in the work and recognizes its therapeutic object; knows how to arouse interest in patients, and how to teach occupations to nurses as a part of the training school course, so that they in turn may become instructors of patients: in this way the success of our institutions will be furthered.





## SHOULD OCCUPATION BE LIMITED TO WORK ROOMS, OR DISTRIBUTED ABOUT THE WARDS?

By HORACE G. RIPLEY, M. D., TAUNTON, MASS.

In response to the topic given me, I should say if possible have both, work upon the wards and in the industrial room. Women while at home, before becoming mentally deranged, do their work in their own kitchens and in their own houses; therefore they take up the work more readily if placed in their midst upon the wards. In 1909 we had a large work room where our women were employed. During this year our superintendent decided to place that work upon wards, and the work room was at that time discontinued. Since then we have done more and better work, and have never regretted that we gave up the industrial room. This work was done without any increase in help, on the contrary several were dismissed, it being placed in charge of the head nurse on the ward, and a great amount of interest is manifested in getting the work out and seeing that it is well done. On the other hand, the man that goes to the field, to the shop and to the mill for his day's work, does better work in the industrial room. They like to see the products of their own efforts, and I am in accord with having the work done by the patients so that they can see it, but this cannot be done when done upon the wards because the nurses or some one is liable to procure it. It was a question at the time whether it would be beneficial or not, but we have found that it was.

I want to emphasize this point, that during the year 1914 I started out to see how many patients we could employ within ten days after admission, as it was our belief that it was better to get them employed early, and then if sent to other wards they would take the work up and think it a part of their life while in the hospital. Of the patients that come in I have kept record and have found that 75 per cent were employed within ten days after admission. They remain in bed for varying periods from one to five days, and after we put them to work some remained for half a day

for rest, but we had no difficulty in getting 75 per cent of the newly admitted cases to work within ten days. It is a very interesting thing and I would like to see other hospitals try this out and make calculations from that point of view. It is interesting to note that they take up the work more readily when first coming to the hospital than if allowed to sit about in idleness and harbor their delusions.

We work at the Taunton State Hospital 71 per cent of our patients in the various departments, considering a working patient as working at least two hours, never less than that, up to eight. The patients in the industrial room, laundry, kitchen, etc., work longer hours, but in the majority of the buildings we work them a half of each day; the other half is devoted to recreation, and that seems long enough for the greater number of our patients.

I do believe in the central industrial room, and I think Dr. Frost, of the Boston State Hospital, has an ideal one. He has experienced teachers; his work is displayed for the patients to look at, which creates interest, and to me it is ideal. I should like one just like that, but I should regret having the work taken from the wards and all placed in a central work room.

## SHOULD THERE BE A RECREATION SCHEDULE?

By WILLIAM RUSH DUNTON, JR., M. D.,

*Assistant Physician, Sheppard and Enoch Pratt Hospital, Towson, Md.*

Recreation has been described as the refreshment of body or mind after toil and there is not one of us, I think, but will admit the value of well-chosen amusements to stimulate our patients into more normal mental activity. The old adage about all work and no play making Jack a dull boy is a very true one and if we are to aid in the recovery of our patients as fully as possible we must provide play periods as well as work periods for their mental stimulation.

The play instinct, which exists in all of us, is too often suppressed and frequently with disastrous consequences, as many mental breakdowns may be attributed to the fact that the patient leads a one-sided existence and becomes in consequence a "dull boy." Many individuals do not know how to play and must be taught. At the present time there is no hospital which, to my knowledge, utilizes amusements to the fullest extent that is possible for the benefit of its patients, and I believe that with but slightly more effort the various forms can be arranged to do more than merely divert for the time that they are in progress. For convenient consideration we may divide amusements into three groups. First, those which occupy the attention of large groups, such as dances, lectures, theatrical performances, concerts, baseball games, moving pictures, etc. It will be noted that in the majority of those enumerated the patient is usually but a spectator and lapses of his attention and interest are not very noticeable, so that we can only judge by subsequent conversations how deep an interest he has taken in the performance. Second, we have amusements which may occupy the attention of smaller groups, such as the players in a baseball game, the performers at a concert, or the actors in a theatrical performance, beside simple games, like bean bags, card games, or a calisthenic class. This group undoubtedly has a much better effect in training the attention of the patient, but also requires a greater



effort on the part of the one in charge. Third, we have amusements which merely occupy an individual, such as reading, games of solitaire, etc. Here the element of competition is lacking, and this is considered a very important factor by playground workers from whom, I believe, we can learn much. It is necessary, if we are to utilize these three forms of amusement thoroughly, that we adopt some system, and if we are to avoid confusion we must first of all adopt some schedule so that those in charge of these various forms of amusement will be able to plan for them satisfactorily. It also is quite obvious that if we are to get the utmost value from our amusements that they must be so arranged that they form recess or rest periods for the industrial or other occupation, hence in making out our occupation schedule we must at the same time make out a recreation schedule.

Much that has been said in favor of having a regular occupation schedule applies to the desirability of a regular recreation schedule, that is, the hospital work goes on much more smoothly if we have a definite time for certain recreations, such as the weekly dance, baseball games, and similar diversions which are attended by practically all of the hospital population. These occur sufficiently infrequently to prevent their becoming stereotyped. Also what has been said about having a certain flexibility in our occupation schedule applies even more forcibly perhaps to the use of recreation. In the minor recreations of a single ward in which the entire hospital population does not share, the nurse must ever be ready to change the diversion from what has been planned sometime before to what may be better suited to the season or the desires of her patients. Dr. Mary Lawson Neff<sup>1</sup> has given a very admirable schedule for ward occupation and amusement by which these two functions are admirably blended and considerable variety is injected into the ward life. The only criticism I would make of this schedule is, that it apparently does not allow for regular, systematic work of some sort, and which I believe has a very definite value in the reeducation of our patients. It seems obvious, however, that this regular occupation should partake more of the quality of labor than of amusement as such is a more normal way of living.

<sup>1</sup> Neff, Mary Lawson. A model program for a ward in a state hospital. Bulletin of Iowa State Institutions, July, 1914.

Dr. Haviland has also pointed out that unless we adopt a regular occupation schedule the shop worker is apt to be "overlooked in the matter of recreation," so that it follows that we can provide recreation better if we have a definite recreation schedule which can be followed out as thoroughly as that for occupation, that is, we should have a definite time for the disk player to be on a certain ward, and the subsequent wards where it shall visit should be definitely planned. When possible a certain day should be set apart for the weekly dance, another for theatricals or concerts, still another for a lecture, so that all classes of patients will be able to look forward to congenial recreation. And apropos of anticipation, I have found that it is well to post notices of these entertainments as far ahead as possible in order to stimulate interest in them and that the patients may have the joy of anticipation to the fullest possible extent. Variety may be injected into our program by an occasional transposing of these entertainments without seriously affecting the regularity of our program, if notice is invariably given of such change.

#### DISCUSSION.

DR. MCKINNISS.—I desire to say a few words in regard to the occupational teacher and the industrial rooms. It seems to me that anything that is worth considering in the way of industries requires some one who takes sufficient interest to be a leader, and the teacher should be furnished the best available means for making the industries interesting to our patients. We have used the industrial rooms as a means of separating this special work from the rest of the routine work of the institution. The fact that a patient is able to go to the industrial room makes a break in the day on the ward. This privilege also acts as a reward to the patient; that in itself helps to create a desire of other patients to attend the classes, and we find that of some benefit. Our patients are first given work on the wards and, as their conduct improves, they are taken to the industrial rooms and given more advanced work to do. These patients are given little privileges such as walks with the teacher, afternoon teas and such attentions which tend to create new interests.

DR. BANCROFT.—I am rather interested in the question whether patients should be rewarded for industrial occupation. Of course we reward the men with tobacco; that is usually sufficient payment for the men. As to whether patients should be allowed actual remuneration for their work is a debatable proposition. It is obvious that the hospital cannot pay patients for their work in money. The hospital can reward patients with privileges of various kinds. Payment in money, however, would entail an unauthor-

izable expenditure of public funds and would create dissatisfaction among the patients. The according of special privileges seems to be a legitimate method of encouraging patients to work. With careful selection of cases and much tactful discretion on the part of the hospital it may be possible to allow certain patients to sell their product. I have found, and I should like to know the experience of others, that there are occasional patients of decided intelligence who will not work for the institution under any amount of persuasion that one can bring to bear upon them. They may be paranoiacs, or may have prejudices against the institution, and in a fit of temper decline to do anything that will in any way contribute to the benefit of the institution. Among this class very frequently you will find very intelligent persons, particularly among the women, who can do very fine work and who are willing to sell their product. In our institution I recall at the present time three such cases and have known others who have made quite a little revenue out of their own handiwork. To allow these particular patients to become employed and to sell their product either within or outside of the institution has resulted favorably for these special cases. The privilege has resulted favorably in that it has kept these especially irritable patients in a pleasant frame of mind. They are satisfied because they are employed and are getting some definite return for their work. Usually this class keep by themselves, are not particularly sociable and for this very reason do not create any special jealousies among other patients.

In regard to limiting the occupation to work rooms or to having the diversional occupation carried on in the wards, it has seemed to me that both methods are desirable. I have found that the extremely demented cases of dementia præcox, for instance, would do better work, economize time and labor if they are taken out regularly to a larger recreation room and managed in a group by themselves. Imitation is strong among these patients. I think, too, that among those who seem quite demented there are many that enjoy the change and diversion of being out of the ward. Occasionally, too, a little refreshment acts as an incentive. I believe also that it is desirable for the teacher to have her work well organized and then instruct the nurses not only in the work that she herself is teaching the patients, but to have the head nurse take charge of groups in the wards. Indeed, I believe that instruction to the nurses in ergotherapy should become a part of the curriculum in every state hospital training school for nurses.

DR. TUTTLE.—The problem of occupation at McLean is not the same as that of the large state hospital. From my point of view a teacher, a well qualified teacher, is an absolute necessity; some one who will keep the work going and maintain the interest. In addition it should be said that if interest is to be maintained the patients must be able to make something that is worth while, something they can give away or use themselves and enjoy. This is in the way of compensation which is not money. At the McLean Hospital they pay for the raw material if they are able and the product is their own.

In regard to the matter of working in occupational rooms or in the wards, I think I agree with the last speaker and that I advocate both, but if there is a teacher, why not economize her time by bringing the patients to her and also in this way give variety to their lives. Some patients, perhaps, might like to work on the ward, but I think it is better to insist on their going to the occupation rooms where there are many things going on which lead to an increase of interest. I would have those patients go who are able; those who are congenial and who would not be objectionable to others; there are always many who cannot go, and for these there should be work in wards. We are trying to instruct the nurses so that we can have their services for those patients who are too sick to go to the occupation building.

DR. HERRING.—There are many interesting questions connected with this subject. There is one defective principle that undermines this entire subject. Most of us have been talking about the benefits of diversional occupation. I hope to-morrow morning we will be able to arrange a round table discussion on this subject for those especially interested in the work. It seems to me if we could hear from the experiences possibly of those who are not doing so much in the way of recreation or occupation, and find out just what their difficulties are, it would be a good thing. It seems to me that the basic principle of the whole thing is diversion. I believe it is just as important to have a teacher who will teach the patients how to play as it is to have a doctor who will prescribe for the maniacal patient. It is now a successful proposition; as a matter of fact it is one of economy to an institution. The question has so often been raised that we cannot afford the expense of a special teacher. It certainly is important to have a teacher who devotes her entire time to a large number of patients who are sitting quietly about the wards and are not giving you any special trouble, but are perfectly content to lead a vegetative life, to bring them out of this lethargy. If we could just switch this discussion to the medical side of the question I believe it would be an inspiration to those who possibly are not quite so familiar with the strictly medical side of the question. The question of being self-supporting is of minor importance. The most important question is: Can we send them home recovered, or make them useful patients in the hospital? That would be a question of interest to discuss this afternoon.

DR. DUNTON.—In regard to the training of nurses in occupation methods, I would say that at the Sheppard and Enoch Pratt Hospital we have found that a nurse is better able to occupy patients than a special teacher who has not had a nurse's training. Through her training the nurse, of course, is able to understand the patients better and is less apt to force them to do work which may be too difficult for them. For this reason I feel that the sooner a course in occupation is given in our training schools the greater advance will be made in the recovery of patients.

One of the best of the training courses of which I know at present is that given at Taunton State Hospital by Miss Cameron. Her method is to take



six nurses and teach them a definite thing in the morning. In the afternoon each of these nurses takes five or six patients and teaches them what she has learned in the morning, so helping to "fix" her own knowledge of it. The nurse must also be sure that she learns from Miss Cameron so that she may be able to teach the patients. Another good thing about this course is that it is given to the junior nurses so that the hospital gets better service from its pupil nurses.

Regarding the kind of work that patients shall do I believe that it is all right to say that they shall make something worth while, but it must be remembered that opinions may differ very materially as to what may be worth while. The main thing is to keep the patients occupied and if, when they have been started, we can induce them to make things that are worth while, in that they have a market value, so much the better.

Another point to which I wish to call attention is, that very often we teach a patient a craft when, with a little more thought on our part, we would have chosen another one. For example, I remember that at the 1912 meeting a gentleman told of a patient, a lawyer, who had recovered with the aid of a course in blacksmithing. This is hardly a craft which a lawyer could follow up as a hobby after he had recovered from his psychosis and it would seem to me that if we can teach mental workers some craft which they can use as a recreation after recovery we will be helping them to prevent a future breakdown.

DR. DEWEY.—I rise to speak of something which I presume has been given attention, and that is, the records of employment. In my experience years ago the percentage was raised from about 40 to 73, that being the regular percentage of individuals employed at that time. As I recall it, and as has been stated here, two hours work was considered as a patient employed; in keeping the record it was observed that the same patient perhaps would be employed in many different capacities, and in order to get the actual percentage of employment it was necessary to count an individual only once; if the number that worked in the several departments were given as employed in such and such classes, then the same person would be counted over several times. The ward report which I used included an exact statement of the employment of each patient and everything concerning that patient in each twenty-four hours, and these reports were brought to the office every morning, for the preceding day.

## SOME NEGLECTED PHASES OF IMMIGRATION IN RELATION TO INSANITY.

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According to the thirteenth census of the United States, there were, on January 1, 1910, 188,874 white persons of known nativity in institutions for the insane and feeble-minded; of these, 55,343, or 29.3 per cent, were foreign born; 109,538 were native born of known parentage; and of these, 33,599, or 30.7 per cent, were of foreign or mixed parentage.

The figures given for the state of New York are even more striking. There were, on the same date, 33,380 white persons of known nativity in institutions for the insane and feeble-minded; of these, 13,814, or 41.4 per cent, were foreign born; 17,103 were native born of known parentage; and of these, 8278, or 51.0 per cent, were of foreign or mixed parentage.

It is evident from these figures that immigration in relation to insanity presents economic problems of considerable importance; but of far greater importance are the problems of eugenics suggested by them. For, turning again to the census statistics, we find that, in the United States as a whole, during the ten years from 1900 to 1910, the native born of native parentage, among the white races, increased by 20.8 per cent, while the native born of foreign or mixed parentage together with the foreign born increased by 24.7 per cent. In the state of New York, during the same period, the native born of native parentage increased by 13.2 per cent, while the native born of foreign or mixed parentage together with the foreign born increased by 33.2 per cent.

Thus, in the United States as a whole, the native-born population of foreign or mixed parentage together with the foreign born constituted among the white races, in 1900, 38.7 per cent, and in 1910, 39.5 per cent. In the state of New York they constituted, in 1900, 60.2 per cent, and in 1910, 64 per cent.

In other words, the rate at which the population of foreign birth or parentage is increasing, especially in the state of New York, is

greater than that of the native population; and it has been pointed out that, should such conditions continue to prevail, the racial composition of the population will gradually change and eventually become more or less like that of the "new immigration"; the prevailing elements, instead of being Dutch, English, Scotch, German, Irish and Scandinavian, will be Italian, Slavonic and Hebrew.

From the psychiatric standpoint it is especially important to know whether or not among the immigrant races insanity, feeble-mindedness and other neuropathic conditions are more prevalent than among the older white population of the United States.

Although this question has already been made the subject of intensive statistical studies, it can by no means be said as yet to be definitely disposed of. The object of this paper is to present an examination of certain data which have but recently become available and which have been, perforce, neglected in studies made heretofore.

#### § I. METHODS HITHERTO EMPLOYED IN COMPARING THE INCIDENCE OF INSANITY IN FOREIGN- AND NATIVE-BORN ELEMENTS OF THE POPULATION.

Two methods have hitherto been employed in comparing the incidence of insanity in foreign- and native-born elements of the population.

In the first of these the number of institution inmates in relation to the population at large on any date arbitrarily selected for the enumeration serves as the basis of comparison. This method, employed by Koren,<sup>1</sup> Salmon,<sup>2</sup> and others, seems to show that the foreign-born population, with the exception of but two or three individual races, has a higher incidence of insanity than the native-born population.

Thus, by calculation of the data furnished by the thirteenth census, we find that on January 1, 1910, there were in the institutions for the insane and feeble-minded in the United States 195.3 native-born and 414.7 foreign-born persons per 100,000 of the total native- and foreign-born population respectively. Similarly, in the state of New York, there were 313.7 native-born and 506.1 foreign-born institution inmates per 100,000 of the total native- and foreign-born population respectively.

Objection is made to this method on the ground that it does not fully reveal the contrast in incidence of insanity which exists between the native- and foreign-born population: "There were 2737 foreign-born patients among the first admissions to the New York state hospitals during 1911, and in that year more than 28 per cent of all foreign-born patients admitted were returned to their homes abroad. This greatly reduces the number of foreign-born patients remaining in public institutions" (Salmon).<sup>2</sup>

This method has also many other shortcomings which need not be discussed here beyond pointing out that they are so great as to have led to its general abandonment.

In the second method, the number of first admissions to institutions in a given year in relation to the population at large serves as a basis of comparison. This method has been employed by Pollock<sup>3</sup> and by Salmon,<sup>2</sup> both making use of the same material, namely, the statistics of first admissions to the state hospitals of New York for the fiscal year ending September 30, 1911. They have shown that the native born have furnished 46.4 first admissions and the foreign born 100.3 per 100,000 of their total population; that "the frequency of insanity among the foreign born throughout the state is, therefore, 2.19 times as great as among the native born"; and that "the rate of insanity among the foreign born of New York City is 2.48 times that of the native born."<sup>3</sup>

It is only fair to add, in this connection, that both these writers have recognized the error which results from not taking into account the differences in age distribution between the native- and foreign-born population groups. Salmon refers to it in the explanation which he offers for the great excess of insanity in representatives of the "old" as compared with those of the "new" immigration, while Pollock, writing in the early part of 1912, states: "No statistics of the age distribution of the population of the state at the time of the 1910 census are available. It is therefore impossible to calculate just what allowances should be made in determining the relative frequency of insanity among the foreign born."

The census data having since become available, it is now possible to eliminate largely, if not wholly, this source of error.



Table 1 shows the age distribution of the native- and foreign-born population in the state of New York, according to the thirteenth census; and Table 2 shows the absolute number of first admissions to the state hospitals and the number per 100,000 of the general population, during the fiscal year ending September 30, 1911, classified by nativity and by ages, according to the report of the State Hospital Commission.<sup>4</sup>

TABLE 1.—AGE DISTRIBUTION OF NATIVE- AND FOREIGN-BORN WHITE POPULATION OF THE STATE OF NEW YORK ACCORDING TO THE U. S. CENSUS ENUMERATION AS OF APRIL 15, 1910.

Age Groups.	Native.		Foreign born.	
	Number.	Per cent.	Number.	Per cent.
Under 15 years.....	2,268,910	36.4	191,013	7.0
15 to 19 years.....	649,255	10.4	182,629	6.7
20 to 24 years.....	575,503	9.2	344,930	12.6
25 to 29 years.....	488,931	7.8	368,870	13.5
30 to 34 years.....	434,629	7.0	316,096	11.6
35 to 39 years.....	405,317	6.5	291,520	10.7
40 to 44 years.....	335,363	5.4	254,065	9.3
45 to 49 years.....	284,133	4.6	211,716	7.7
50 to 54 years.....	247,716	4.0	165,043	6.1
55 to 59 years.....	173,560	2.8	117,235	4.3
60 to 64 years.....	130,383	2.1	105,024	3.9
65 years and over....	235,491	3.8	178,845	6.6
All ages, including those of unknown age .....	6,237,570	100.0	2,729,272	100.0

TABLE 2.—FIRST ADMISSIONS TO NEW YORK STATE HOSPITALS FOR THE YEAR ENDING SEPT. 30, 1911, CLASSIFIED BY NATIVITY AND BY AGES.

Age Groups.	Total Number.		Number per 100,000 of the general population.	
	Native.	Foreign.	Native.	Foreign.
Under 15 years.....	13	1	0.6	0.5
15 to 19 years.....	169	113	26.0	61.9
20 to 24 years.....	302	305	52.5	88.4
25 to 29 years.....	332	343	67.9	93.0
30 to 34 years.....	326	321	75.0	101.6
35 to 39 years.....	341	284	84.1	90.7
40 to 44 years.....	294	305	87.7	120.0
45 to 49 years.....	274	223	96.4	105.3
50 to 54 years.....	239	205	96.5	124.2
55 to 59 years.....	181	141	104.3	120.3
60 to 64 years.....	118	133	90.5	126.6
65 years and over.....	322	344	136.7	192.3
All ages, including those of unknown age .....	2923	2737	46.9	100.3

It is to be noted that in both the native- and foreign-born groups the incidence of certified insanity increases sharply with advancing age; it is also to be noted that the population under 15 years of age, which furnishes scarcely any hospital admissions, constitutes for the native population at large no less than 36.4 per cent and for the foreign born only 7.0 per cent of the whole; and, furthermore, the reverse is true for the higher age groups which furnish the greatest relative numbers of hospital admissions; the age groups of 50 years and over constitute for the native population at large only 12.7 per cent, and for the foreign born no less than 20.9 per cent of the whole.

These statistics, if analyzed without providing correction for the differences in age distribution, show that the native population, on the whole, furnished 46.9 and the foreign born 100.3 first admissions per 100,000 of their general population. But simple calculation shows that, upon eliminating the error resulting from the differences in age distribution, the relative corrected figure for the native population becomes 74.1.

In other words, the foreign born furnish on the average, age by age, not 2.19 times as many first admissions as the native, as asserted by Pollock and repeated by many others, but only 1.35 times.

Another source of error, also referred to by the above-mentioned writers, lies in the difference between the native- and foreign-born population as to percentage of town dwellers. Everyone knows that an urban environment brings to the surface the neuropathic tendencies of a community far more fully than a rural environment. Thus, according to the thirteenth census, the white native population dwelling in rural districts, 38,189,868 in number, furnished 15,263 admissions to insane hospitals during 1910, which makes a rate of 40 per 100,000; while the white native population dwelling in urban districts, 30,196,544 in number, furnished 22,257 admissions, which makes a rate of 73.7 per 100,000, or 1.84 times as great as the rate for rural districts.\*

The census also shows that in 1910, 26.6 per cent of the native population and only 9 per cent of the foreign-born population in

\* The Census Bureau, for purposes of discussion, has defined urban population as that residing in cities and other incorporated places of 2500 inhabitants or more, and rural population as that residing outside of such incorporated places,

the state of New York resided in rural districts. Calculating again, to eliminate the error resulting from this difference in environment, we find that the figure representing the relative number of first admissions per 100,000 of the native population now rises to 80.8. Accordingly, the apparent excess of incidence of insanity among the foreign born is again reduced; the rate is now but 1.24 times as great as that for the native population.

But is even this figure to be accepted without qualification? Who knows what allowance must be made for the heavy stress which is entailed in the migration and in the subsequent process of adjustment to new conditions and more exacting standards of living? It would seem that any excess in the incidence of insanity that can properly be attributed to the influence of this special stress is not to be regarded as evidence of a more prevalent inherent tendency among foreign-born persons to develop neuropathic manifestations.

Again, who knows what further allowance for less obvious sources of error would have to be made before the statistics of the foreign-born insane could be rendered strictly comparable with those of the native insane?

It is, indeed, an open question whether, after all allowances have been made, any material difference as to incidence of insanity would still be found between the native- and foreign-born population groups. But in practice, we could never be sure of having made all necessary allowances and of having eliminated all possible sources of error; the question is, therefore, one that is hardly susceptible of direct investigation; it can, however, be approached indirectly.

Such an indirect investigation will be undertaken in the next section of this paper, while the remainder of this section will be devoted to a consideration of the effects of another migration, one affecting the native American population alone, namely, the migration from the eastern to the western coast.

According to the thirteenth census, there were in the state of California, on the date of enumeration, 903,996 persons who were born in California and 79,992 who were born in New York.

According to the report of the California State Commission in Lunacy,<sup>5</sup> there were among the patients admitted to the hospitals for the insane in that state, during the biennial period ending

June 30, 1910, 639 who were native Californians and 147 who were natives of the state of New York.

By calculation, we find that the Californians have contributed 70.7 admissions per 100,000 of the general population and the New Yorkers 183.8, or 2.60 times as many, a showing even more unfavorable than that made by the foreign born in the state of New York.

Are New Yorkers as much more prone to insanity than Californians as these statistics seem to indicate? Most probably not; it seems far more likely that we have here but another instance of effects produced by a distant and difficult migration actuated by economic forces and altering the normal age distribution, percentage of urban dwellers, various conditions of existence, etc.

§ 2. COMPARISON OF THE INCIDENCE OF INSANITY IN NATIVE- AND  
FOREIGN-BORN ELEMENTS OF THE POPULATION  
BY AN INDIRECT METHOD.

Probably more than two-thirds of all cases of insanity develop on a hereditary basis. As stated in the introductory remarks, the question of the degree of prevalence of insanity in the foreign-born population derives its importance mainly from its bearing on eugenics; should immigration continue in the future as in the past, or should it increase, as it may do, then the racial composition of the state of New York will gradually change and eventually become more or less like that of the now foreign-born portion; and if this foreign-born portion shows not a seeming but a real excess in proneness to mental disease, then the future native population may be expected to show the same excess.

Some have gone so far as to accept in uncorrected form the statistics of the first generation of immigrants and to predict without qualification that the same excessive rate of insanity will prevail in their subsequent generations. It would seem to us that a matter which is of such great moment to millions of people can hardly be thus taken for granted; it would certainly seem more proper, if need be, to withhold final judgment until one based upon an actual examination of trustworthy data could be offered.

According to the thirteenth census, there were, on the date of the enumeration, in the state of New York, 3,364,516 native-born



persons of native parentage,\* 2,241,837 native-born persons of foreign parentage,† and 765,411 native-born persons of mixed parentage.

From the statistics furnished by the State Hospital Commission,<sup>4</sup> it appears that during the fiscal year ending September 30, 1911, there were 5700 first admissions to the civil state hospitals, classified as follows:

Native born, of native parentage.....	1224
Native born, of mixed parentage.....	624
Native born, one parent native, other unknown.....	22
Native born, one parent foreign, other unknown.....	53
Native born, nativity of both parents unknown.....	218
Native born, both parents foreign.....	782
Total native born first admissions.....	2923
Nativity of patients unknown.....	40
Foreign born .....	2737

Simple calculation shows that the native born of native parentage contributed 34.6 first admissions to the state hospitals per 100,000 of their general population, while the native born of foreign parentage contributed 34.9,—practically the same proportion.‡

In other words, whatever might be said of any undue proneness towards mental disease in the foreign-born population, the first generation of their descendants shows no greater prevalence of insanity than their contemporaries of native parentage; the much-feared menace of an increased incidence of insanity in the future

\* In this number are included all negroes, whether of native or foreign parentage, the great majority being probably of native parentage.

† Not including those of mixed or of unknown parentage.

‡ It should be added that here again the age distribution of the two groups considered is not the same, the difference being probably such that a correction would produce a showing in favor of the native parentage group. But, on the other hand, it is equally probable that the proportion of town dwellers is greater in the foreign parentage group, and here a correction would produce a showing in their favor. Unfortunately, data are not available for an exact correction; as the two disturbing factors are probably slight and produce errors in opposite directions it is clear that they must to some extent neutralize each other and that any remaining error can hardly be of any considerable magnitude.

generations, as resulting from immigration, is shown by these figures to be not real but imaginary.\*

### § 3. THE ECONOMIC ASPECT.

The economic aspect, though not comparable in importance with that of race hygiene, is, nevertheless, as stated in the beginning, worthy of consideration.

Granted that the immigrant population shows no greater proneness to mental disorders than the native population, yet the fact remains that nearly half the insane and feeble-minded in institutions in the state of New York are of foreign birth. The liability of the state for the care and maintenance of any number, great or

\* Since the above was written, the special report of the thirteenth census on the insane and feeble-minded in institutions, by Joseph A. Hill, has appeared.<sup>6</sup> Several pages in it are devoted to a consideration of this question of the relative frequency of certified insanity in the native-born population as classified according to parentage. Curiously enough, however, no distinction is made there as between native-born persons of foreign parentage and those of mixed parentage, these groups being throughout considered as one under the heading of "native-born of foreign or mixed parentage." One would, indeed, hardly suspect that, for the purpose in view, it would be necessary to make such a distinction; yet the facts, at least as revealed by New York State statistics, show that the native born of mixed parentage constitute a population group which differs strikingly from both the native born of native parentage and those of foreign parentage, having contributed more than double the proportion of first admissions of either of the latter groups, namely, no less than 81.5 per 100,000 of the population at large! Manifestly, it cannot be proper to add this group either to that of native or of foreign parentage, and it is merely to make this point that these statistics are referred to here; it would be out of place here to discuss at length this rather remarkable fact. It might, however, be suggested, as a possible explanation, that mixed marriages are probably more frequent among the less conservative of those who go into the American "melting pot." Often enough this freedom from undue conservatism acts as a leaven of progress and beneficial reform; but every psychiatric clinician knows also that in many cases it is but a phase of lowered inhibition which is so characteristic of neuropathic constitutions. Accordingly, we will not be accused either of too great a leaning toward conservatism or of taking a stand against the principle of the "melting pot" for venturing the opinion that it is this lowered inhibition, in so far as it underlies a certain proportion of mixed marriages, that accounts, partly, if not wholly, for the excessive frequency of certified insanity among the offspring resulting from such marriages.

small, of foreign-born insane can by no means be taken for granted as is that for the care of the native-born insane.

Here the question arises, What can serve to establish such a liability? Since the issue is purely a financial one, the answer is plain: the liability of the state for the care and maintenance of the foreign-born insane can be established only by a proportionate contribution to the wealth of the community resulting from the labors of the foreign-born population; and the special object of this section becomes to make, if possible, an estimate of that contribution.

It is now generally recognized that at least the modern migrations to the United States are governed largely by economic conditions. Accordingly, when a state or a large division of the country becomes the goal of a large popular migration it is but reasonable to assume that it affords valuable opportunities which are not to be found in the places from which the migration proceeds. Yet not all are attracted by these opportunities sufficiently to sever old ties and to deliberately impose upon themselves years of great hardship. It must require a special amount of ambition, enterprise and faith to lead one to thus leave his home in quest of greater happiness hoped for in a distant land, among strange people, in the uncertain future. These considerations, however, suggest but a promise of achievement; for the extent of its fulfillment we must turn again to the census statistics.

The states of the union may be divided into four groups according to their proportion of foreign-born population. *Group 1*, wherein each state has a foreign-born population of less than 10 per cent, comprises the states of Alabama, Arkansas, Delaware, Florida, Georgia, Indiana, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; this group as a whole has a foreign-born population of 3.4 per cent. *Group 2*, wherein each state has a foreign-born population of between 10 and 20 per cent, comprises the states of Colorado, Idaho, Iowa, Maine, Nebraska, Ohio, Oregon, Pennsylvania, South Dakota, Utah, Vermont, and Wyoming; this group as a whole has a foreign-born population of 15.8 per cent. *Group 3*, wherein each state has a foreign-born population of between 20 and 30 per cent, comprises the states of Arizona, California, Con-

necticut, Illinois, Michigan, Minnesota, Montana, Nevada, New Hampshire, New Jersey, North Dakota, Washington, and Wisconsin; this group as a whole has a foreign-born population of 23.5 per cent. *Group 4*, wherein each state has a foreign-born population of over 30 per cent, comprises the states of Massachusetts, New York, and Rhode Island; this group as a whole has a foreign-born population of 30.6 per cent.

For each of these groups of states we have calculated the annual per capita wealth production by dividing the sum of the gross values of all the agricultural, mineral, and manufactured products, as given in the census, by the total population. The figures thus obtained are, for Group 1, \$216.29; Group 2, \$390.09; Group 3, \$405.58; and Group 4, \$427.93.

Undoubtedly the very fact, among others, of peculiar age distribution of the foreign born, with the small proportion of children and the large proportion of able-bodied adults, accounts for this seemingly superior wealth-producing capacity. However this may be, it would seem clear that the cost of maintaining the foreign-born insane is but a minute fraction of the wealth increment brought to the communities by the foreign-born population; and we may say with Waldman,<sup>7</sup> "Those who are alarmed at the expense to which the state is put by the foreign-born insane regard only the debit side of the ledger and fail to consider the credit side." \*

#### § 4. SUMMARY AND CONCLUSIONS.

It is a fact that practically everywhere in this country the foreign-born population furnishes a much larger proportion of insane hospital inmates than the native population.

The main object of this study is to determine whether this fact is due to a greater inherent tendency among the foreign born to develop mental disease or to some other conditions.

\* The considerations in this paper would naturally argue against a general policy of restriction of immigration; but they are not to be construed as arguing in favor of relaxing the efforts of keeping out all insane and otherwise mentally defective immigrants. On the contrary, whether insanity be relatively frequent or rare among immigrants, the welfare of this country demands that insane persons be prevented from entering and remaining in it and that the facilities for their detection and deportation be perfected and increased rather than reduced.



It is found that the difference in age distribution which exists between the native- and foreign-born parts of the population accounts largely but not wholly for the difference in the proportion of insane hospital inmates.

It is found that this difference is further, but still not wholly, accounted for by the greater proportion of town dwellers among the foreign born than among the native population.

Upon eliminating the errors resulting from these disturbing factors there remains but a slight difference between the native- and foreign-born parts of the population in the incidence of certified insanity.

It is thought that this remaining slight difference may be accounted for by the heavy stress entailed in the migration and in the subsequent process of adjustment to new conditions and more exacting standards of living, and, possibly, by other, less obvious, disturbing factors.

Incidentally, it is shown that the migration of native American masses of population from the eastern to the western coast has produced a similar effect in creating a seeming increase in the incidence of certified insanity; natives of the state of New York who have emigrated to California have contributed proportionately 2.60 times as many admissions to the state hospitals there as the native Californians, a showing even more unfavorable than that made by the foreign-born population in the state of New York.

Owing to the practical impossibility of eliminating all sources of error in a direct comparison of the insanity rates in the native- and foreign-born parts of the population, an attempt is made to make the comparison by an indirect method.

Insanity being, for the most part, transmissible by heredity, any real difference in its incidence which may exist between the native and foreign-born parts of the population should be as patent in the offspring as in the parents; in other words, it should be as evident between native-born persons of native parentage and native-born persons of foreign parentage as it is between the native and foreign born themselves.

Calculation shows that in the state of New York in the fiscal year ending September 30, 1911, the native born of native parentage contributed 34.6 first admissions to the state hospitals per 100,000 of their general population, while the native born of

foreign parentage contributed 34.9,—practically the same proportion.

Turning to a consideration of the financial aspect of the problem, it is assumed that the liability of the state for the care and maintenance of the foreign-born insane can be established only by a proportionate contribution to the wealth of the community resulting from the labors of the foreign-born population.

The states of the union, divided into four groups according to their proportion of foreign-born population, show that the annual per capita wealth production is in close correlation with percentage of foreign-born population, as follows:

Groups.	Foreign-born population.	Annual per capita wealth production.
1	3.4%	\$216.29
2	15.8%	390.09
3	23.5%	405.58
4	30.6%	427.93

The cost of maintaining the foreign-born insane is but a minute fraction of the wealth increment brought to the communities by the foreign-born population.

The following conclusions are drawn:

There is no evidence to show that there is a greater proneness toward mental disease in the foreign-born than in the native population.

The much-feared menace of an increased incidence of insanity in the future generations, as resulting from immigration, is not real, but imaginary.

"Those who are alarmed at the expense to which the state is put by the foreign-born insane regard only the debit side of the ledger and fail to consider the credit side."<sup>7</sup>

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7. Morris D. Waldman: *The Alien as a Public Charge, with Particular Reference to the Insane*. Paper read before the Thirteenth New York State Conference on Charities. Published in the Annual Report of the State Board of Charities for the Year 1912, Vol. 1, Albany, N. Y., 1913.

### DISCUSSION.

DR. MULLAN.—I would like to say just a word in regard to this very interesting paper of Dr. Rosanoff. I am connected with the immigration work and assist in keeping out the mentally deficient and insane. Of course we want to know from time to time how efficient our machine is—whether we are increasing in efficiency, etc. In a short time, in accordance with a suggestion of one of our young officers, we want to get out a circular letter to the different hospitals in order to find out something about their foreign-born insane; whether the psychosis began after the immigrant came into this country, or before his arrival; we want to know whether we are getting a lot of hopelessly insane cases or not. The members of this Association will be of great assistance to us if they will respond to this circular letter. We desire to ascertain when an alien was admitted to the hospital, and when the psychosis began. There has been a good deal of talk about the subject, and I think Dr. Rosanoff's contribution is excellent.

DR. WALTER B. SWIFT.—There is another point that might be mentioned in connection with this subject, and that is that America is being used as a dump. I can bring evidence to show that that is true from the fact that when I was in Berlin attending a meeting of the Berlin Neurological and Psychiatric Society, I heard one of the men say that America was used as a "dump," and that may also apply to migrations West from New York.

DR. ROSANOFF.—I do not think it is to be doubted that foreign governments have in the past encouraged the emigration of defective and neuropathic persons to this country. Since the enactment of laws prohibiting the admission of such immigrants a good many have still come in, owing to the circumstance that the organization of the medical force at ports of entry is not as efficient as it might be, not through any fault of those who manage the work, but through an insufficiency in the number of physicians assigned there. The considerations in my paper would naturally argue against a general policy of restriction of immigration, but they are not to be construed as arguing in favor of relaxing the efforts of keeping out all insane and otherwise mentally defective immigrants. On the contrary, whether insanity be relatively rare or frequent among immigrants, the welfare of this country demands that insane persons be prevented from entering and remaining in it, and that the facilities for their detection and deportation be perfected and increased rather than reduced.

## OBSERVATIONS ON THE VOICE IN TABES—A VOICE SIGN.

### PRELIMINARY REPORT, WITH CASE.

By WALTER B. SWIFT, M. D., BOSTON,

*Instructor in Neuropathology, Tufts College Medical School; in charge Voice Clinic, Boston State Hospital, Psychopathic Department.*

In order to freshen in your minds the subject-matter of the present paper, I wish to say a word about the different forms of paralysis and then a few words about tabes and the reasons for the symptoms that appear there. The purpose of this is to place clearly before you certain data that I wish to use when I come to the specific application of the subject in question.

There are four general types of paralysis: the flaccid, the spastic, the sensory, and the conduction. By flaccid paralysis is meant, as you know, a paralysis of the peripheral nerve, where all motor function is gone. In this paralysis we have motion impossible, we have lost reflexes, and if the lesion is located in that part of the peripheral nerve where the sensory and motor fibers are united in one sheath, then we have absolute loss of all sensation in addition. This type of paralysis occurs in such nerve cases as anterior poliomyelitis, neuritis, nerve incision or nerve crush.

By a spastic paralysis is meant the paralysis of the central motor neuron that passes from the great motor area in the cortex in front of the fissure of Rolando down to the anterior horn cells in the spinal cord. In this paralysis we have motion enhanced, because the inhibitory action exercised through that central motor neuron is removed and with it goes the removal of motor control. In this paralysis we have, as objective symptoms, increased reflexes, pathological reflexes, spasticity. This type of paralysis occurs in such nerve cases as hemiplegia, paraplegia, quadriplegia—in fact, in any destructive lesion of the pyramidal tracts.

By a sensory paralysis is meant a paralysis where the sensory side of the neurological mechanism is involved in part or wholly. In this paralysis we have no involvement of motion in itself except



as it is a means of supplying control to the expression of motion. We do, however, have partial or wholly involved sensory anæsthesia. This type of paralysis occurs in such nerve cases as nerve crush, syringomyelia, neuritis, tabes dorsalis, and certain brain conditions.

By conduction paralysis is meant paralysis of the association fibers that occur in the brain between one area and another; for example, this is well illustrated in speech where a subcortical lesion has destroyed the fibers that pass from the hearing center in the temporal lobe to the area of motor speech in the inferior frontal convolution. We see, then, that here the sensory side of the whole nervous mechanism is intact; we see also that the motor mechanism is intact. It is the connecting link at the top, the key of the arch, so to speak, that is lacking. This type of paralysis occurs in subcortical lesions, and conduction aphasia is a good illustration.

I want to recall these different types of paralysis, so that in the case that is to be presented it will be quite clear that *one type* is present; and there can be absolutely no question that there is any other type there! This first step I must secure to make my presentation clear, for if there is any question left in your minds as to the presence of any other type of paralysis than the one that is supposed to be present, all that I have to say at once loses its foundation. I want you, therefore, to be clear in your understanding from the first that of all these types of paralysis the one that I am to present to you is not a flaccid paralysis, is not a spastic paralysis, and is not a conduction paralysis, but is solely and alone a sensory paralysis of a certain type.

This type of paralysis is that found in tabes dorsalis. The sensory paralysis here found is a partial involvement which strikes mostly those fibers that report the sensation of position from the extremities to the brain; this is, as you know, the so-called deep sensation.

It may very naturally be asked in a sensory paralysis of this nature, how is it that the motion of the legs becomes so involved when the motor side of the nervous mechanism is entirely intact. The reason for this is simply because the motion has lost its sensory control elements. In flaccid paralysis you have a loss of motion itself; in spastic paralysis, you have a loss of the control

of the motion on the motor side—that is, a paralysis of motor inhibition. In the type of sensory paralysis under consideration, while motion and its control is intact, you have a loss of sensory-controlled motion, or in simple words, you are unable to move as you exactly intend to, because you cannot sense just where your leg is or direct it minutely. In still other words, we have here in *tabes dorsalis*, incoordinate movements which are caused by a lack of sense control!!

Upon this basis of sensory lack of motor control the Fraenkel exercises for ataxia of the arms and legs were founded and applied. The essence of these exercises is to so educate the eye in the observation of motion, and in the observation of muscular action, that the eye may supply more or less the motor control which is otherwise lacking through sensory involvement. Or, in less technical terms, we have the eye trained to supply loss of sensation of position which occurs in this disease.

Fraenkel published his discovery of the use of one sense to take the place of another sense—the eye in this case replacing deep sensation of position—in an extensive book that appeared in 1902. His exercises and methods have since been adopted as the routine and logical treatment for all cases with marked ataxia of the extremities. The exercises have received his name in the term *Fraenkel Exercises*, and the results of treatment are sometimes very marked. For example, a case that uses a cane and wobbles around very extensively, after two or three months of training is sometimes able to walk without a cane and show very little ataxia in his gait.

Fraenkel claims no cure for the lesion of *tabes* itself. The degenerated nerves are still there as marked as ever. Anyone can see that degenerated nerves cannot be restored; but in some cases his treatment of ataxia is so marked in its recovery that functionally it amounts almost to a cure. I think, also, that anyone would thus concede that the eye cannot completely replace the sensation of position that comes from legs and arms, and that the eye and concentration in people vary to some extent; and therefore, also upon this basis, results of drill must necessarily be variable and partial. These truths we should naturally expect also in more or less marked degree when it comes to a consideration of the speech side of locomotor ataxia.

Let us now consider briefly the type of the mechanism that we have in tabes with special reference to the externalization of that mechanism in the voice.

As will be seen from the above, we have as our neurological basis a partial sensory paralysis—paralysis of the position sense. That is, gross sensation is intact, as, for example, touch, and the feeling of hot and cold; and on the motor side, the peripheral motor neuron is intact as well as the sensory motor neuron; we have, then, nothing involved except the sensory report of position sense. From such a situation as this in the mouth, one should expect very interesting motor appearances—that is, in the sound of the voice and in attempts to speak, we would expect to find expressions of this lack of motor control of sensory origin; or in other words, inability to coordinate minute muscular movements in the production of sound. From the knowledge of sound production, we know that certain cavity formations make certain vowels and that certain exact and strained positions, followed mostly by air explosions, result in the sounds of the consonants. If we put these two things together, then, we would find as the type of voice in tabes, a voice where exact coordination was lacking. The production, therefore, would be one that approached vowels and consonants and yet sounded them inexactly. It is hard to find a term that is exclusively applicable here; such a voice might be called slovenly, indefinite, incomplete, indistinct, ataxic, disheveled. Perhaps the best word, after all, would be ataxic speech.

From what has already been said above, one would naturally be led to ask how the eye is to be utilized in a cure of this ataxia; and this is the problem at the point where I offer a new method of approach in treatment.

At this point I should like to present a case:

THE CASE.—Man, 53, American, Mail Clerk.

*Complaint:* Indistinct speech, pains and a stumbling gait.

First visit to Voice Clinic, Psychopathic Hospital, Boston, August, 1913.  
*P. I.* Began in 1910 when he noticed something "wrong." Could not walk as fast as usual. Once thought he was walking fast, when a lady passed him at an ordinary gait, and he exclaimed, "What is the matter with me?" Again, he once fell on going down some steps. Says he stepped, but did not know where he was going. Since then careful about "getting near edge of things." He has tripped his toes; and sometimes

toppled over without falling. For six months has had severe sudden pains in legs. Now better. Thinks he has had pains in form of a belt around his abdomen. Has occasionally vomited, often nauseated; better now. His walking is as if he had a "jag on," "I reel, and stagger." All these worse in the dark. Some bother buttoning coat.

No headaches, blindness, paralysis, bladder or rectum trouble; no waves in improvement, no uncontrollable laughter or other signs that would suggest insular sclerosis. No other complaints.

*F. H.* Father and mother both well at 77 and 75. Father always well. Mother considerable neuralgia, otherwise well. Had six children, all alive; always well, save one who had typhoid. Patient is third child. Mis-carriages unknown. Maternal grandparent died of cancer; otherwise strong and sturdy. Father Irish and mother English.

*P. H.* Birth normal. As a child measles, pertussis, mumps; at 18 ear cut and left arm broken in fall from a team. Gonorrhea at 22; chancre at 27; treated internally. Stricture since the first venereal infection.

*P. E.* Well developed, well nourished man. Gait shows occasional stumble, unsteadiness, and insecurity, no marked incoordination.

Eyes: React to light, but both a bit sluggishly, right more so. React. to distance good. Slight nystagmus, faster and quicker on looking to right. No paralysis of ocular muscles.

Sensation: In face normal to touch and pain. Throat and tongue sensation normal. Arms and legs normal to touch and pain. No delayed sensation. "Smell normal."

Reflexes: Palatal and throat present and active. Wrist and triceps not obtained either side. Knee jerks and plantars active. Achilles equal.

Ataxia shows on approximating fingers, and finger-to-nose test. Slight but doubtful ataxia in legs, position sense good. Slight Romberg present. No atrophy. No paralysis. No intention tremor. Examination otherwise negative.

*Vocal Examination:* A marked intensity and rasping pervades all utterances. Some slight flexibility is present, but in general the voice is rough and monotonous. Says he cannot now whistle. "Used to whistle much, but cannot now make a noise; can't pucker my lips." On request to try and whistle, he makes sounds which are slow of formation and labored in execution. Can whistle Yankee Doodle after a fashion; but it is labored, and with such marked effort that it reminds one of trying to work with chilled hands. When he whistles slowly, he succeeds better. When he whistles fast it soon dies out so he cannot make any noise. At first notes used to change, "without my trying to make any change in them. I mean they went lower and higher— it seemed strange." This change he could hear and make it better with his ear by watching the notes and checking them up.

When very tired his voice is always worse, *i. e.*, after the day's work is done speech becomes markedly more laborious.

The sounds, letters, words, and sentences where he has the most trouble are those where some marked movement of the lips or tongue or throat is



required—in a word—some painstaking adjustment of coordinating muscles. A few examples are the sounds put in italics thus:

*Eased my throat, provisions, well, make no noise*, understood, Lennor St., Journal. Again in some utterances he omits sounds altogether or substitutes others, as striture for stricture, and premont for Tremont. When he speaks fast his words “all go to pieces,” and “it seems as if I couldn’t get my lips to shape them.” A set of words, as, for example, *make no noise*, in quick succession is very hard to execute and does not improve with such practice.

Through all the steps of these experiences I have been finally led to discover a system of exercises for ataxia of the voice; to the use of another sense to control the ataxia; and another method of doing coordinating exercises.

The method in brief consists (1) of eliciting the ear in place of the eye as Fraenkel did; (2) of demanding a measured tread to enunciation; and (3) in initiating what I call a listening check-up—repetition. Full details of this new series of exercises and their neurological setting is reserved for a later paper.

SUMMARY: A case of tabes with lesion located mostly in the bulb, showing a marked speech defect of incoordinate articulation important enough to interfere some with business, is treated by a series of vocal coordinating exercises and is relieved. This renders his occupation easier. He considers himself “one-third cured.”

*The Voice Sign*: There is a distinct voice sign in tabes—an ataxic speech, which consists of a slovenly, indistinct enunciation on the laryngological side that shows partially in the vowels, but predominantly in the consonants. On the sensory side there is a partial involvement of the sense of position that is entirely to blame for the ataxia and slovenliness.

*Treatment*: The method of approach in treatment consists in the application of a new sense, the ear, on the otological side of the speech mechanism employed to check up and control the vocal expressions of ataxia, and thus to bring the slovenly speech through the employment of a trained hearing up to a more exact and clear enunciation—an ear function educated to check up and perfect a throat function.

## MEMORIAL NOTICES.

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### DR. HENRY SMITH NOBLE.

Dr. Henry Smith Noble, Superintendent of the Connecticut Hospital for the Insane, Middletown, suddenly passed away on Tuesday, March 16, 1915, at the home of his nephew, Dr. George S. Bidwell, Waterbury, Vt., where he had gone for rest and recuperation. His burial took place on the afternoon of March 18, at Bellows Falls, Vermont. "Beauty screened time's last brutality—death—with his favorite flowers, carnations."

Dr. Noble was of New England ancestry, born October 8, 1845, at Harrisburg, Vt., son of A. Smith and Susan (Patrick) Noble. Thomas Noble, the immigrant ancestor, was recorded a citizen of Boston in 1653, and was probably born in England in 1632. Dr. Noble was sixth in direct line from Thomas.

He attended the public school and the academy in his native town and later became a student at the Green Mountain Institute at South Woodstock, where he was a teacher while fitting himself for Tufts College. He graduated from Tufts with the degree of A. B. in the class of 1869, in which he stood second.

"As a young man he had practical knowledge of hard work in his father's shop and upon the farm. He learned the trade of blacksmith in his father's smithy, and was competent to carry it on. His father believed that every man should have a trade, and if reverses came, it would be always an available as well as a valuable asset."

Dr. Noble began his medical studies with Dr. D. W. Hazelton of Cavendish, Vermont, and took his first course of lectures at the University of Vermont. He took his second course in 1871 at the College of Physicians and Surgeons, New York, from which institution he received his degree of M. D. The next year he spent at the Hartford (Conn.) City Hospital as an interne. He began the practice of his profession in 1872 at Chester, Vermont,

where he remained until the fall of 1879. In 1880 he was appointed second assistant physician at the Hartford Retreat and in the same year became assistant physician at the Conn. Hospital for the Insane. In 1882 he held the same position at Michigan State Hospital at Kalamazoo, but returned to the Conn. Hospital for the Insane in 1884. He spent the summer of 1886 in Europe, and upon his return was made first assistant physician to the Conn. Hospital for the Insane. In September, 1898, he became assistant superintendent of the hospital and in October, 1901, was appointed superintendent.

On March 14, 1871, Dr. Noble was united in marriage with Edna J. Chaffee, who survives him.

Dr. Noble belonged to Olive Branch Lodge, F. & A. M, of Chester, Vermont, was a member of the Middlesex County Medical Society, Conn. State Medical Society, American Medical Association, Neurological Society of New York, Conn. Society of Mental Hygiene, American Medico-Psychological Association.

"A man is highest when he is humble and this was Dr. Noble. He was a modest man, he held his place in the world with simple dignity. His tact, patience and forbearance served wonderfully in his trying position. He sowed good services and sweet remembrances have sprung from them. He was much beloved by the inmates of the hospital over which he presided because of his constant attention to their needs and for his kindly sympathy."

CHARLES E. STANLEY.

DR. BROOKS FORD BEEBE.

1850-1914.

Brooks Ford Beebe was born June 25, 1850, at Barlow, Washington County, Ohio; and died at Cincinnati, May 29, 1914. The final summons came suddenly, while actively engaged in his duties at his city office, and was due to cerebral hemorrhage.

The study of medicine was a family heritage, his father and grandfather having been practitioners of medicine, while he himself was one of three brothers also physicians. His father was William Beebe, officer in and Surgeon of the 148th Regiment O. V. I., and a member of the Loyal Legion, to which the subject of this memorial was elected a "Member of the First Class by Inheritance" in 1906. Insignia No. 14989.

Dr. Beebe's boyhood was spent in rural or semi-rural districts, where he obtained the usual primary schooling of those days.

Coming to Cincinnati in the later '70s, he matriculated at the Medical College of Ohio, now Medical Department of the University of Cincinnati, where he graduated with honor in 1880, securing, as one of the rewards of good work, an internship in the Hospital of the Good Samaritan. After a year of honorable and distinguished service here, he entered upon a career in private practice, hospital and college work which brought him success and reputation as a practitioner and teacher.

For nine years (1881-90) he was assistant acting surgeon to the U. S. Marine Hospital, at Cincinnati. Shortly after entering private practice (in 1890) he developed a taste for medico-legal work, especially in connection with psychiatry, and his services were in frequent demand by the courts and the legal profession. For a number of years he taught the subject of physical diagnosis to the students of his Alma Mater; a most fitting prelude to intelligent work in psychiatry. He was also, at one time, assistant to the chair of physiology, then occupied by the late Dr. Frederick Forchheimer.

In 1900 he established the private sanitarium for nervous and mental disorders known as "Grandview," located on Glenway



Avenue, Price Hill, Cincinnati. He was its medical superintendent and proprietor at the time of his decease. His wide acquaintance and personal popularity with the medical profession brought him cordial support.

As a member of the faculty of the College of Medicine, University of Cincinnati, he was, for a term of years, the writer's colleague, and our personal and professional relations were of the most harmonious and agreeable character.

Active and cheerful in his attention to duty, he enjoyed in high degree the appreciation of his classes; and a wide circle of physicians and former students will miss his genial smile and cordial greeting.

While not a voluminous writer, his contributions to medical literature were timely and practical in character; and bore evidences of much thoughtful preparation.

Dr. Beebe married, in 1898, Mrs. Beulah Benton Hissem of Kentucky, who survives him. She was his active and very efficient helpmate in the conduct of his sanitarium work and is gratefully remembered by the many patients whose welfare was promoted by her wise supervision and personal attentions.

Dr. Beebe took an active interest in organization and organizations—medical, fraternal and social; and held various positions of honor and responsibility in such bodies.

A member of the Academy of Medicine of Cincinnati from his earliest years in practice, he was subsequently influential in reorganizing the Ohio State Medical Association. As chairman of its council, he was a strong factor in building up the state medical organization into a compact and useful body. He was also chairman of its "Section on Nervous and Mental Disease" in 1909. He was president in 1907 of the Ohio Valley Medical Association.

Of national medical organizations, he was identified with the American Medical Association, and was a member of the American Medico-Psychological Association from 1909 until his decease.

He was also a member of the Masonic Order, and a Presidential elector in 1909.

Marietta College conferred upon him the degree of Master of Arts in 1905.

The writer of these lines enjoyed his confidence and personal friendship, throughout his long and successful career as student, interne, practitioner, teacher and consultant; and it is with a feeling of personal loss that he assumes the sad duty of recording this tribute to his many good qualities.

By his untimely passing in the zenith of his career, this Association loses an honored and active member; the medical profession an industrious and able worker; his family a loving personality of marked distinction in his life's work; his intimate associates a warm and outspoken friend; and the community a useful citizen.

F. W. LANGDON.

### DR. WILLIAM B. MOSELEY.

Dr. William B. Moseley, Resident Alienist of the Observation Ward of the Kings County Hospital, Brooklyn, N. Y., died suddenly the morning of June 26, 1914. Dr. Moseley was born in Dallas, Texas, about 45 years ago. He graduated from the United States Naval Academy at Annapolis and afterwards took a degree of M. D. at the University of Virginia. He entered the New York state service in August, 1896, as an assistant physician, serving in that capacity until March 28, 1904, when he was transferred to the Department of Public Charities of the City of New York and placed in charge of the observation ward of the Kings County Hospital. At this department the number of cases examined annually averages about 1500 and therefore the doctor gained a very wide and valuable experience in psychiatry. His services were of high quality and his gentle manner won for him a large circle of very warm friends. The doctor was a member of the Army and Navy Club, the Elks Club, the Brooklyn Crescent Athletic Club and the King County Medical Society.

E. M. SOMERS.

## DR. ROBERT J. DYSART.

Dr. Robert J. Dysart died at the Northern Hospital for the Insane at Winnebago, Wisconsin, May 26, 1914, after a prolonged illness, leaving a wife and infant daughter. His death was directly due to the exacerbation of a chronic endocarditis from which he had suffered for several months, the endocarditis having originally complicated an attack of rheumatism.

He was born at Albany, New York, Nov. 23, 1872; the son of Rev. J. P. and Adela Rowland Dysart. When a small boy he came west with his parents and received his preliminary education in the public schools of Minnesota and Wisconsin. Later he attended Lake Forest University from which institution he graduated in 1893 with the degree of Bachelor of Science. His medical education was received at the College of Physicians and Surgeons of Chicago in 1900. Till 1906, when he entered the service of the Northern Hospital for the Insane as third assistant physician, he was in general practice in Wisconsin and Dakota, except for about a year when he served as assistant physician in the Northern Hospital.

He was a member of the Winnebago County Medical Society and the Wisconsin Medical Society, and an associate member of the American Psychological Association.

In recognition of his long and faithful service, he was advanced from the position of third assistant physician, at which he entered the service of the hospital, to that of assistant superintendent, the position which he occupied at the time of his death.

Dr. Dysart was held in high esteem because of his direct methods in dealing with people, his consideration for others, and for his honesty, loyalty and professional ability; especially so by those who were associated with him in his labors; and his early removal from the field of his activities will long be mourned by his friends and felt by the institution in which he so faithfully labored.

ADIN SHERMAN.



## PROFESSOR WESLEY MILLS.

1847-1915.

During the winter of 1867-68, before beginning the study of medicine, I very often went with Dr. Bovell to his lecture on physiology at the old Medical School building in the Parks, Toronto. In those days of protoplasm and of Beale's "germinal matter," when the carmine stain had brought the nucleus into importance, he propounded for weeks the mysteries of the cell to a bewildered but delighted class, as no one could resist the personal charm and lucid tongue of a man with such a perfervid enthusiasm. Among those who caught the infection was a tall thin student, taking Arts and Medicine, Thomas Wesley Mills. A helpful custom brought many of us into the professor's room after lecture to discuss points of difficulty. Mills was always full of them. J. E. Graham, Dick Zimmerman, Burt of Paris, Ontario, and myself were usually of the company and to all queries Dr. Bovell was ready with replies. Mills was deep in the philosophy course, and in many lively discussions I got my first introduction to Kant, Hegel, Cousin and Mill. We nicknamed him "John Stuart" after the last-named philosopher. The next winter, when I became a regular medical student, the after-lecture symposia were repeated, and I got to know Mills very well, and to have a great respect for his ability in an argument. Then we parted, I to Montreal, he to teach and to save money. One lecture during the session of 1876-77, laboring at the Proximate Principles (taken chiefly from Dalton's Physiology) my eye caught on the back benches a critical expression on a familiar face—my old fellow student "John Stuart" who had come to McGill to finish his medical course. After graduation, in 1878, he took a hospital position, and then went abroad to study laryngology. In the session of 1878-79 the faculty converted one of the lecture rooms into a physiological laboratory, and Dr. Arthur Ritchie acted as my demonstrator. Dr. Mills, who had worked at the University College (London) laboratory, joined me in 1881 as demonstrator. We

had a very active session and devoted the Saturdays to practical work, and had many class demonstrations. We used Sanderson's "Handbook" and I think we were the first in Canada to give medical students an opportunity to work practically with apparatus. In those happy days the professor collected the fees and paid all expenses. My fees had been raised and I took in for the session of 1881-82, \$2,400 and spent \$1,019 on the department. The next session Dr. Mills went abroad again to study with Sir John Burdon-Sanderson, returning in October, 1883, and the faculty helped this year in the payment of his salary. When I was called to Philadelphia in 1884 he was appointed lecturer in physiology, and in 1886 was made professor. He resigned in 1910 on account of ill-health, and afterward lived quietly in London.

Mills had an excellent training as a physiologist. On two occasions he worked at University College with Sir John Burdon-Sanderson and Dr. Schäfer, and with Kronecker in Berlin, and twice for periods of three or four months with Professor Newall Martin at Johns Hopkins. He contributed papers on heart problems, which were among the first to follow the fruitful lead of Gaskell: "On the Heart of the Turtle," "On the Heart of the Terrapin," "On the Heart of the Fish and Menobranchus" (*Journal of Physiology*, Vols. V, VI, VII). He also became very interested in physiological chemistry and wrote a very good paper on "Oxalic Acid" (*Journal of Physiology*, Vol. V). He also contributed several important articles on the physiology of the brain cortex. Subsequently two lines of study absorbed his energies. Like myself, he became a warm personal friend of Dr. Duncan McEachran, principal of the Montreal Veterinary College, in the work of which we were both keenly interested. This association led to a long series of researches on comparative physiology and more particularly on animal intelligence. He started private kennels and studied the dog in all phases of health and disease, and he published two works, "How to Keep a Dog in Town" and "The Diseases of the Dog." In 1886 appeared "Outlines of Lectures on Physiology," in 1889, "A Text-book of Animal Physiology," and in 1890, "A Text-book of Comparative Physiology." In 1898 he summarized his psychological studies in a work, "On the Nature and Development of Animal Intelligence," which I am told is still one of the best manuals on the subject.

One of Mills' earliest contributions to the *Journal of Physiology* was on the voice. He was passionately devoted to music, and was himself, in younger days, no mean performer on the violin. In 1906 he published an important work on "Voice Production in Singing and Speaking," which brought him much reputation outside of medical circles. After his retirement and serious illness he lived in London and devoted himself with great energy and enthusiasm to the study of music. He had pet theories, but it is surprising how thoroughly familiar he became with all the aspects of the subject. Only a few weeks ago he wrote me a long account of his hopes and ambitions for more and better music in this country and in Canada. He was a constant contributor and critic to various musical journals. He has left to the library of the McGill Conservatory of Music his works on the subject, also his violin for the use of a poor student, and a collection of books of clippings of musical criticisms, which, as he says in his will, "cost me much labor and will probably increase in value as time passes."

Mills had all the essentials for success—ambition, brains and a capacity for hard work; but in his make-up there was a curious lack of capacity for happiness—not in his home, but in collegiate and professional circles. Temperament, or possibly the hard struggle of his early years, had made his outlook on life a bit somber, and he often understood his colleagues as little as some of them did him. Howard he loved, and could appreciate his stern sense of duty; but the opportunism of Craik, the philosophic calm of Ross, the contagious hilarity of Roddick, the cynical wisdom of Shepherd, and my own frivolities he never understood.

Upon men obviously striving to be taken at their own valuation the world has no mercy; now and again one wins out, but the majority form a battered band whose work and worth never receive a due mead of appreciation. It is the careless sinner who goes a-whistling and working through life, caring not for what the world thinks, who gets more than his due, and can say with Wordsworth as the shadows lengthen, "The gratitude of man has oftener left me mourning." It is tragic that one who had done so much and worked so hard should be able to write, as Mills did to me, "I have not fared too well at the hands of men during my life." Like many men devoid of the quality, he prided himself

on a keen sense of humor. This led to a mental astigmatization which some times gave a blurred vision, even in the sunshine of life. Guileless as a child, he was at the mercy of the coarser spirits of a class who took advantage of an innocence made piquant by the assurance of wisdom. But to the earnest student, Mills was a devoted teacher and a constant friend. His labors in connection with the student societies, should always be carefully remembered at McGill. He worked hard for the school and for the university and built up an excellent department in physiology.

Mills was singularly happy in his death. Following a serious operation, prostatectomy, in 1910, he was ill for months and one of the best articles on the psychology of the sick-bed and of nurses from the standpoint of the patient is to be found in his article entitled, "Some Considerations Bearing on the Patient, the Student, and the Nurse," in the *British Medical Journal*, March 19, 1910, in which he gave his history as a patient for a year. The story illustrates Plato's shrewd remark that to appreciate fully all the aspects of a disease a doctor should have had it. An interesting feature is the personal description of the concentrated wretchedness in the condition of shock. During the past few years he had been very well. About ten days before his death he wrote complaining of attacks of pain in the pit of the stomach, which he feared were anginal, and he had had one or two attacks of dyspnoea. But a reassuring letter from me put the thing out of his mind, and he wrote saying he was quite well again. On Saturday afternoon, February 13, after luncheon, he was writing, when his wife heard his head drop on the table. He fell over, and in a few minutes was dead. A post-mortem showed advanced coronary artery disease, a fresh thrombus in one branch, beginning aneurism at the apex of the left ventricle, sclerosis of the arteries and large arteriosclerotic kidneys.

W. O.

The above article written by one of the most brilliant of modern physicians appeared in the *Canadian Medical Association Journal* in April, 1915. It is an exceedingly fair and just estimate of one of the most interesting characters it has been my good fortune to know. Dr. Mills often told me that he was completely misjudged and misunderstood by his fellow men and insisted that W. O. and



I were the only persons who had read him aright, and appreciated the ideals for which he was striving. Probably this was, in a sense, true, and yet he left behind a far larger group of grateful admirers than he understood. It was my good fortune to come under the tutelage of Mills in 1872 and 1873, when he was principal of the High School in the little village of Elora. What he accomplished there is still talked of by those who remember the happy period of his short residence in Elora. His work there was remarkable and few men could hope to attain such results as he did. Every pupil was enthusiastic and worked with an earnestness that meant much in life, and the inspiration left its mark on all who came in contact with him.

From the psychological standpoint his power to inspire at this particular period of his career was remarkable; as with older students in medicine later on he did not seem to win the interest of the majority, although beloved by the few. His attitude toward the average student was that of a critic, and his inherent honesty made him resentful in the case of the young man whose point of view was apt to be governed largely on the necessity of getting up the pass work for an examination. He wished all medical students to be medical philosophers and to delve into the mysteries of psychology and philosophy.

This point of view was not popular with the majority and Mills bitterly regretted that his students could not have been inspired as the children were in his Elora school. He could not realize that the children had no other interest except that of sharing his enthusiasm and drinking to the full of his delightful inspiration without thinking of the stern necessity of learning a bread-and-butter-winning profession. Dr. Mills often referred to his Elora experience as the brightest spot of his career.

Judged by ordinary standards Dr. Mills came near the border line of genius: if he had possessed an atom of humor, more practical ability and the power to make an accurate estimate of the average man he would have been one of the most remarkable of Canadians. As it was he must be classified as a great man.

In musical matters his judgment was strikingly accurate and his criticism sane and well-balanced, and his writings on the voice undoubtedly influenced the opinions of the whole musical world,

so much so that several well-known people appropriated his theories and adopted them as their own.

In comparative physiology he was an ardent student and, refusing to be hampered by tradition, made some striking additions to the sum total of the world's knowledge. His book on the dog is a classic. Professor Mills was always deeply interested in psycho-analysis and for a time felt that when he retired from University life he would devote himself to consultation practice in which psycho-analysis would play an important part. Apparently this scheme came to naught and he seems to have devoted himself to things musical to a large extent and wrote enthusiastically of his experiences.

In spite of the apparent pessimism W. O. refers to, Dr. Mills was, in reality, an optimist, as well as an idealist, and at heart believed in the triumph of what is best in the human race.

Altogether Dr. Mills was an unusual man ; one of the most loved of my circle of friends. My debt to him is beyond computation and he stands out in memory as one of the most striking men it has been my good fortune to know.

CHARLES K. CLARKE.

## DR. OSCAR RUSSELL LONG.

Dr. Oscar Russell Long was born at Williamsport, Pa., August 16, 1850. He was educated in the public schools of Williamsport and at the age of 16 years became a teacher in a country school in Lycoming County, Pa.

In October, 1871, he took a course in anatomy at the University of Michigan at Ann Arbor, and later completed his medical course, graduating at the Detroit Medical College, and for a year was employed as a teacher in the College.

In 1874 he married and removed to Ionia, Michigan, where he began the general practice of medicine.

In 1885 he was appointed medical superintendent of the Asylum for the Dangerous and Criminal Insane now known as the Ionia State Hospital, and continued in charge of it until his sudden death on September 10, 1914.

Dr. O. R. Long was the first and only superintendent of the Ionia State Hospital, being appointed by Governor R. A. Alger in 1885, when the first building of the Michigan Asylum for Insane Criminals was erected in connection with the Michigan Reformatory at Ionia.

In 1899 the name was changed to the Michigan Asylum for Dangerous and Criminal Insane and later to that of the Ionia State Hospital.

The accommodations furnished by the original buildings were taxed by patients from the very start and soon it became necessary to plan a colony as there was no room for further buildings in connection with the reformatory. Accordingly 217 acres of land were purchased for the purpose. Here upon a beautiful site chosen by himself, Dr. Long planned and supervised the erection of a dozen attractive buildings for the housing of patients and the accommodation of medical and other officers.

This colony is now the main institution and the original structure is a branch of it.

In 1898 the Homoepathic Medical School of the University of Michigan conferred upon him the honorary degree of Doctor of

Medicine. Two years later he was offered the position of dean at the same school but declined it. He filled the position of lecturer upon mental and nervous diseases at Ann Arbor for several years. He was much engaged in medico-legal work as an expert witness. He was regarded an excellent administrator, a strict disciplinarian and an economical and efficient medical superintendent. The ideal location and artistic arrangement of the buildings of the Ionia Hospital and the general beauty of the grounds were all largely due to his excellent taste and personal attention.

Dr. Long was one of the leading men in his school of medicine in the state and a valued citizen of the community in which he resided. He was personally attractive and made many warm and enduring friendships.



## SAMUEL FAIRBANK MELLEN.

Samuel Fairbank Mellen was born June 11, 1855, in Natal, South Africa. His father had gone there from Massachusetts as a Congregational missionary four years previously and remained for 25 years before returning to this country. At the age of 16 Dr. Mellen came to Massachusetts and entered Phillips Andover Academy, from which he was graduated. He then entered Amherst College, from which he received a degree in 1878. Two years later he studied in New York University Medical College and received his license to practice in 1884. Following this, he practiced medicine in New Mexico. He then came to Ossining, N. Y., and was health officer of that village. Five years later, in 1891, he entered the New York State Hospitals service. He was assistant physician in Willard State Hospital from 1891 to 1898. In 1899 he became an assistant physician at the Kings Park State Hospital and was transferred to the Hudson River State Hospital in the following year, where he remained in the medical service as an assistant physician up to the time of his death.

Dr. Mellen was greatly interested in the genealogy of his family, of which the Mellen branch settled in Pelham, Mass., about 1760, and the Fairbank branch held reunions at the old homestead at Dedham, Mass., built in 1634. He was an officer in the Fairbank Association. Perhaps it was his interest in the genealogies of his parents that lead him to take a more than ordinary interest in those of his friends. He was loyal to Phillips Academy and Amherst College and frequently attended class reunions, keeping up a live interest in his former classmates. He was an extensive reader and not infrequently purchased encyclopedic works. He was a man of very upright disposition and was exceedingly conscientious in his dealings with others. Invariably he was a gentleman in thought and deed, and his kindly disposition endeared him to many.

Although a member of the Medical Society of Dutchess County, he retained for many years after leaving Westchester County an interest in the Medical Society of the latter. He retained also

his vote in Westchester County. The University Club of Poughkeepsie included him in its membership. He was a member of the American Medico-Psychological Association.

Dr. Mellen was suddenly seized with an attack of acute appendicitis and although an early operation was performed peritonitis had set in and he died three days later on July 15, 1914. He was buried in Oberlin, Ohio, the last home of his parents.

Dr. Mellen never married. He is survived by several sisters.

W. E. MERRIMAN.

## DR. H. WALTON WOOD.

Dr. H. Walton Wood died at Jefferson Hospital, Philadelphia, Pa., Jan. 12, 1915, after an illness of two years, at the age of 36. He was born in Spring Garden, Va., 1879. At an early age the family moved to Baltimore, where he lived until 1902. He was educated in the public schools of Baltimore. He attended the Polytechnic Institute of that city and later a private school, Deichmann's, where he prepared for the University. He was graduated from the University of Maryland School of Medicine in 1902 and later received an appointment at the Worcester State Hospital, Mass., where he remained for a year. He was also assistant physician at the Taunton State Hospital, Mass., 1903-04, after which he entered into private practice at Fair Haven, Mass. He was successful in private practice and he remained at Fair Haven until 1911. His early experience in the State Hospital of Massachusetts had developed an interest in nervous and mental diseases, and in 1911 he went abroad in order to prepare himself more thoroughly in this branch of medicine.

He returned from abroad and was associated with Dr. Stedman of Bournwood, Brookline, Mass., and later was located in Boston where he practiced exclusively in nervous and mental diseases. After spending a year in Boston, during which time he further perfected himself in nervous and mental diseases, he returned to New Bedford, Mass., to continue his general practice, but most of his time was devoted to nervous and mental cases as well as medico-legal work.

He was married in 1905 to Grace Elizabeth White, daughter of W. W. White of Baltimore, Md., and had two children, ages nine and four, who survive him.

Dr. Wood had an affable and agreeable disposition, a pleasing personality, and made many friends both within and without the medical profession. He was untiring in his work, deeply interested in his profession and his illness can be ascribed to his excessive zeal for his patients. Never strong physically he taxed himself to

the utmost limits of his endurance which finally ended in his serious illness in 1913.

During that year he developed a tubercular lesion of his tonsils and throat and though advised to give up work he continued to practice for six months longer, during the greater part of which time he was unable to take sufficient nourishment because of the extreme pain caused by swallowing. He spent some time in the Berkshires, but gradually grew worse and was finally compelled to give up his practice and for three months lived at Saranac Lake under the care of Dr. Baldwin. In spite of all efforts to relieve him his condition grew steadily worse and he was advised to go farther south. For a while he was at Browns Mills in the Pines, New Jersey, and finally was admitted to the Jefferson Hospital at Philadelphia under treatment of Dr. G. Braden Kyle. Although he well knew the fatal outcome of his trouble, at the same time he bore his affliction with fortitude and patience. He never lost his familiar good humor and to the very last greeted those about him in the same cheerful and good humored manner as was his wont.

Dr. Wood was a member of many medical societies and was actively interested at all times in nervous and mental diseases. He contributed much to the discussion in the local medical society, although he published very few contributions, due principally to the fact that all of his time was devoted to his practice. One of his monographs entitled "Causes of Insanity" showed considerable grasp of this important question, especially from the standpoint of a practicing physician.

His many friends were shocked to learn of his death at this early age and had he not been called to his rest so soon the promise of an exceptional career, based upon his talents and the ability he had already shown in his chosen work, would have been abundantly fulfilled. He had the respect and affection of all those associated with him, and had the confidence of the courts in Massachusetts and was called in by the judges in his locality in all criminal cases where the question of the mental condition of the prisoner was to be determined.

Besides his wife and children Dr. Wood is survived by his father and mother, Col. and Mrs. J. Early Wood of Scarsdale, New York, by his sisters, Mrs. Oscar F. Williams and Janey Wood, and one brother, Early Wood of New York.



## DR. THEODORE WILLIS FISHER.

Dr. Theodore Willis Fisher was born in Westboro, Massachusetts, May 29, 1837, and died October 10, 1914. He was educated in the schools of Medway and Williston Seminary and Phillips Academy of Andover, and graduated at the Harvard Medical School in 1861. He was a surgeon of the 44th Regiment in the Civil War. He was appointed superintendent of the Boston Lunatic Hospital in 1881 and resigned from that position in 1895. For several years he examined for the Public Institutions Commissioner of Boston most of the insane committed to the state insane hospitals from that city, and saw many cases of mental disease in consultation. Later he was appointed lecturer in mental diseases in the Harvard Medical School. In the seventies, he was the leading expert in his branch in Boston and was frequently called on to testify as a witness in court. He was active in all matters concerning the welfare of the insane and earnestly advocated a new hospital for the insane of Boston. He largely planned the Danvers State Hospital and the buildings first erected by the Boston Lunatic Hospital at West Roxbury. He belonged to many medical societies and had been a member of this Association since 1881.

He was the author of a number of papers. Among these was one entitled, "Was Guiteau Sane and Responsible for the Murder of President Garfield?" published in the *Boston Medical and Surgical Journal* in 1888. He could speak with some authority on this subject since he was employed as an expert in the Guiteau trial. As showing his interest in medical progress, mention may be made of a paper he published in 1889 on "Cortical Localization and Brain Surgery," and another on "The New Psychology," in 1893. Until the last few years of his life, Dr. Fisher continued to be prominent as an energetic worker in the field of mental disease. Unfortunately for his coworkers, he became disabled and was obliged gradually to relinquish the duties which he had performed so well.

It is fitting that this Association place on record its appreciation of the services performed for many years by Dr. Fisher as a progressive and active leader and teacher in the field of mental disease, and its regret that the last years of his life were rendered hard for him by incapacitating illness.

WALTER CHANNING.

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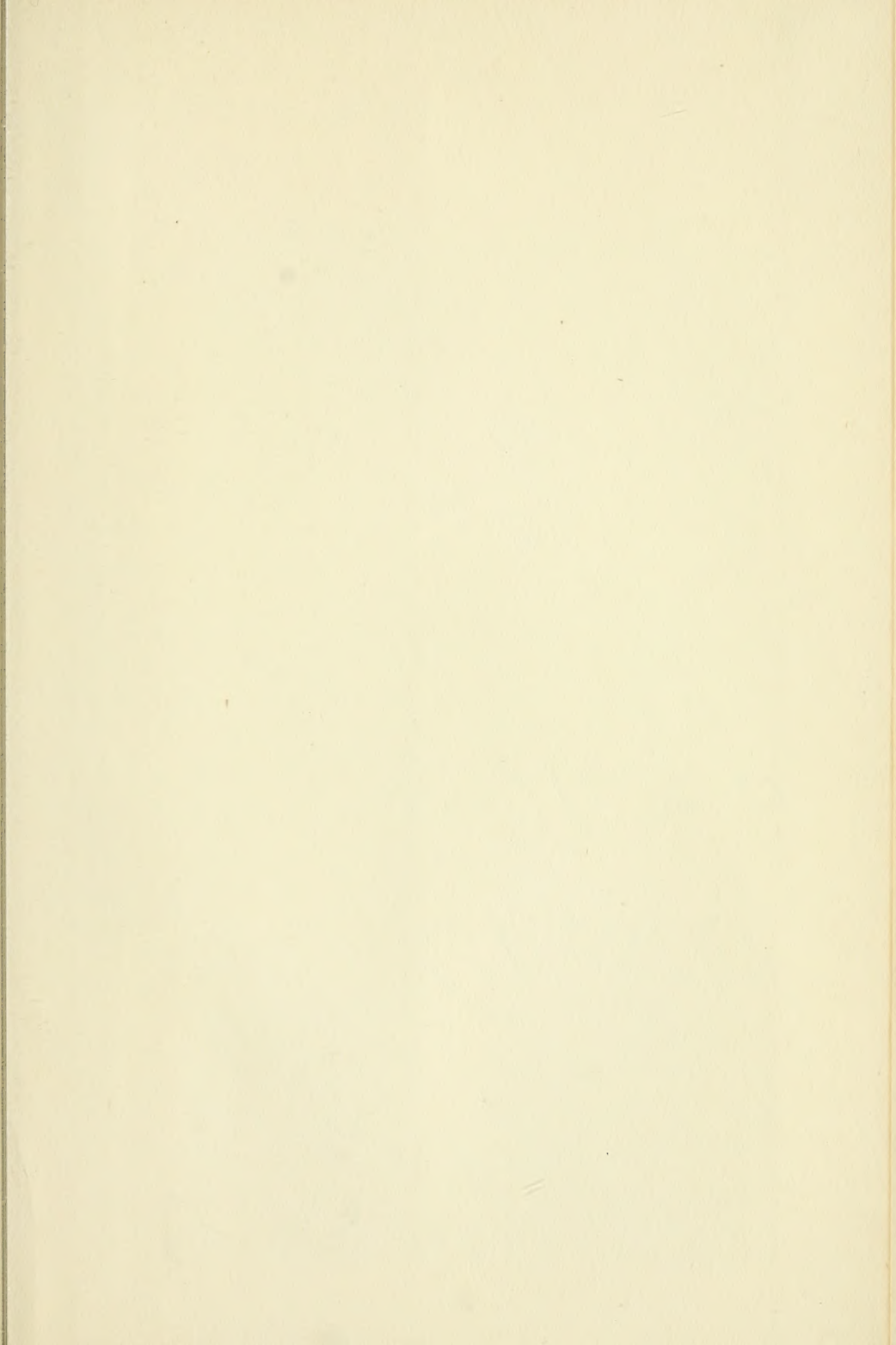




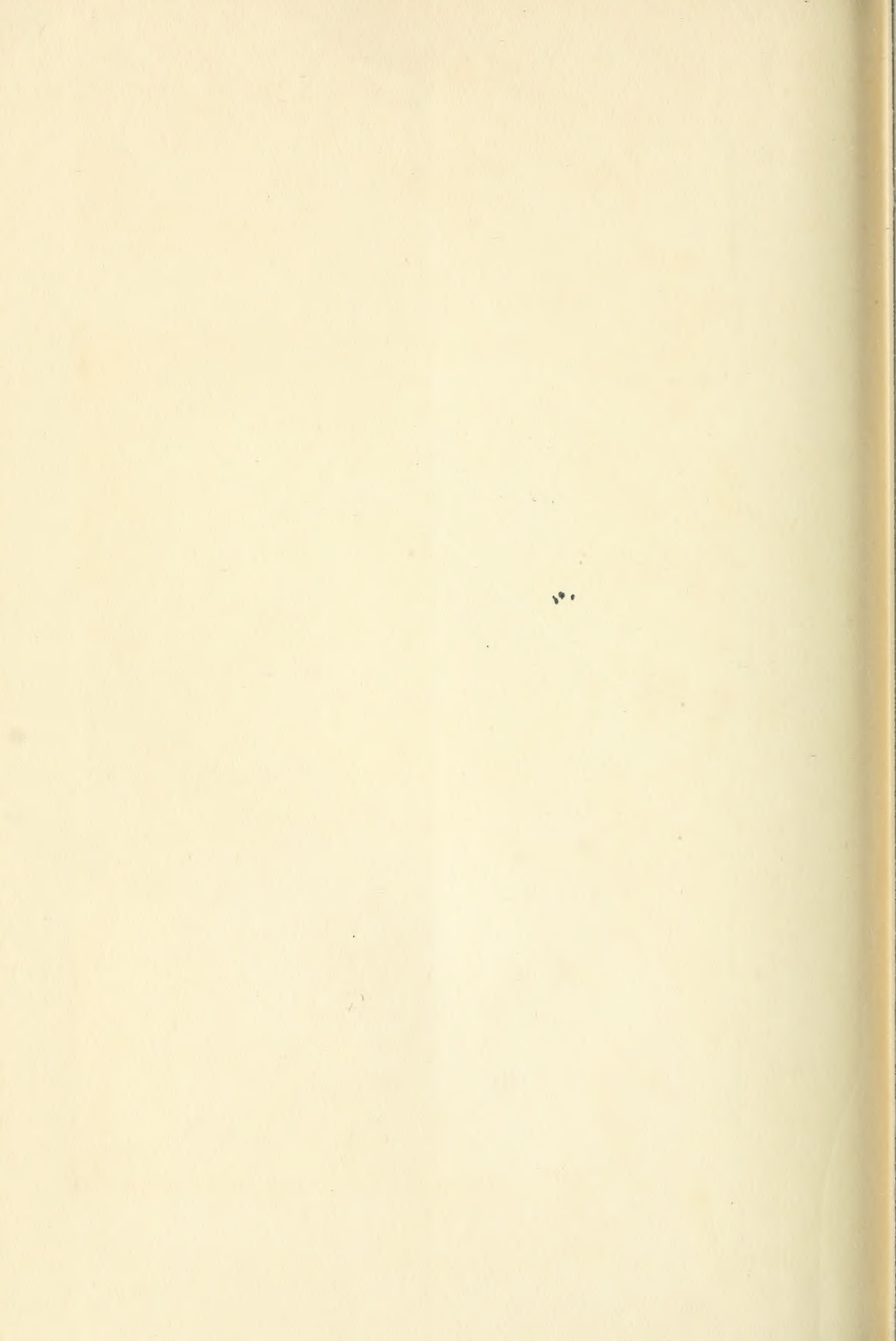












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